BUSINESS WEEK

A McGRAW-HILL PUBLICATION

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APRIL 19, 1958

Mastrate

Special Report

U.S. EDUCATION

1. Whats wrong

2. Whats ahead

THE PERMANE IN



Raising the level... of bearing standards!

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BOWER

ROLLER BEARING

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FIGURES OF THE WEEK

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1953 1954 1955 1956 1957 ¹ F	1946 Average	Year Ago	Menth Ago	Week Ago	§ La
USINESS WEEK INDEX (chart)	91.6	144.7	125.8	†122.5	*12
RODUCTION					
Steel ingot (thous, of tons)	1,281 62,880	2,313 160,369	1,417 111,772	†1,308 †87,870	110,
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.)	\$17,083	\$57,478	\$57,326	1\$66,901	\$67,
Electric power (millions of kilowatt-hours)	4,238 4,751	11,695 7,442	11,860 6,257	6,250	11,
Bituminous coal (daily av., thous. of tons)	1,745 167,269	1,597 284,442	1,350 272,450	†1,215 279,404	1, 256,
TADE					
Carloadings: mfrs., miscellaneous and I.c.I. (daily av., thous. of cars)	82	67	55	54	
Carloadings: all others (daily av., thous. of cars). Department store sales index (1947-49 = 100, not seasonally adjusted) Business failures (Dun & Bradstreet, number)	53 90 22	44 113 308	36 105 336	35 114 352	
RICES					
Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	311.9 ††73.2	407.1 93.3	399.3 83.0	394.8 80.8	3
Feedstuffs, daily index (BLS, 1947-49 = 100)	1175.4	83.0	89.2	90.2	•
Print cleth (spot and nearby, yd.)	17.5∉	17.9¢	17.4¢	17.2∉	1
Finished steel, index (BLS, 1947-49 = 100)	††76.4 \$20.27	174.0 \$42.17	181.6 \$36.33	181.6 \$33.50	53:
Copper (electrolytic, delivered price, E & MJ, Ib.)	14.045¢	31.925€	24.030€	24.870€	24.8
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$1.97	\$2.28	\$2.27	\$2.33	\$
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	**30.56¢ \$1.51	33.87¢ \$2.10	34.52¢ \$1.70	34.55¢ \$1.65	\$4.
NANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10;	17.08	45.01	42.16	41.52	4
Medium grade corporate bond yield (Baa issues, Moody's) Prime commercial paper, 4 to 6 menths, N. Y. City (prevailing rate)	3.05% %-1%	4.43% 3%%	4.67% 2%%	4.67% 21/8%	4.6
ANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††45,820	55,588	56,031	154,119	55,
Total loans and investments, reporting member banks	††71,916 ††9,299	86,930 31,376	89,408 30,372	89,541 30,842	89, 30,
U. S. gov't guaranteed obligations held, reporting member banks	1149,879 23,888	26,305 25,400	28,025 24,456	28,113 24,586	28, 24,
ONTHLY FIGURES OF THE WEEK		1946 Average	Year Ago	Month Ago	Let
lousing starts (in thousands)		55.9	87.0	65.0	7
Personal income (seasonally adjusted, in billions)		\$178.0	\$340.2	\$341.7	\$34
Farm income (seasonally adjusted, in billions)		\$16.9 \$8.541	\$15.7 \$16,298	\$16.5 \$16,115	\$15,
Bank debits (in millions)		11\$85,577	\$197,231	\$181,696	\$203,
xports (in millions)		\$812	\$1,611	\$1,511	\$1

THE PICTURES—Cover—Frank Ronan; 39—Boeing Airplane Co.; 42—Bob Olsen; 70—Association for Applied Solar Energy; 72—Massachusetts Institute of Technology; 81—(top) Grumman Aircraft, (bot.) Fruehauf *railer Co.; 104, 105—Joseph Fabry; 111—I.N.P.; 138—W.W.; 166—Noei Clark.

Preliminary, week ended April 12, 1958.
 †† Estimate.
 * Ten designated markets, middling } in.

B Date for 'Latest Week' on each series on request.

HOW TO GET YOUR COMPANY MORE MONEY TO WORK WITH - FAST!

The faster your company knows its exact balances from its outlying operations—hour by hour, day by day—the more money it has to work with. To concentrate and "free up" money for companies, we have worked out over the years a number of flexible clock-beating systems. One customer estimates that our methods enabled him to free up \$8 million. Special plans are devised for special needs. Our modern approach should give your company more money—faster. Tell us about your money transfer problems.

BANKERS TRUST COMPANY, NEW YORK





Steam-heated hands, formed from brass, press the gloves into shape after they've been cut and seamed. John Jakubec, Jr., at the Daytona Glove Corporation shows us how that's done. Glovemaking is an art practiced in Gloversville since the 1760's when early settlers traded tinware for deer skins.

Employers Mutuals of Wausau plays a unique part in century-old crafts...

Wausau Story

IN UPSTATE NEW YORK



The Knickerbocker News Albany, New York



"What sets Upstate New York apart from the rest of our state isn't altogether a matter of geography. This area has a personality all its own . . . a proud heritage of craftsmanship, genuine respect for work well done.

"Maybe that's why so many Upstate industries like to do business with Employers Mutuals of Wausau. For example, at Amsterdam, Mohasco Industries . . manufacturers of the well-known Mohawk and Alexander Smith carpets. A merger created the problem of consolidating many insurance casualty contracts held by different insurance companies. Employers Mutuals worked closely with Mohasco insurance men to build a well-rounded program. The result: better accident prevention, better claim handling, and more efficiency. At a savings too!

"At Gloversville they were making gloves almost a hundred years before the city of Wausau was incorporated. But now Wausau is a part of the picture... Employers Mutuals is the largest compensation carrier in New York's Fulton County. Employers Mutuals' facilities and experience fit the needs of the companies. And there's the ever-present interest and friendly help that gives Employers Mutuals the country-wide reputation of being 'good people to do business with'."

Employers Mutuals, with offices all across the country, writes all forms of fire, group and casualty insurance. We are one of the largest in the field of workmen's compensation. For further information see your nearest representative (consult your telephone directory) or write us in Wausau, Wisconsin.



Tying a weaver's knot comes naturally to Edwin Shuttleworth, Mohasco Vice President of Northern Manufacturing. Properly impressed are Merle Johnson, Employers Mutuals Underwriter (center) and Carl Eddins, Mohasco Insurance Manager. At the Amsterdam plant, more than 600 looms weave rugs and carpets. Those punched cards you see at the top of the photograph operate like the roll in a player piano, selecting the proper pile yarns to form the carpet pattern. Filler yarn in the moving shuttle forms the weft of the carpet. If a yarn breaks, you tie a weaver's knot... if you know how.

Employers Mutuals of Wausau



"Good people to do business with"

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READERS REPORT

On Right Track

Dear Sir:

U.S. Steel's Richard Sentner. 'pushing company and product identification as a sales tool" . . . is on the right track [BW-Mar.29] '58,p88].

As a supplier of stainless steel stampings to the plumbing fixture industry, as one example we have attached this pressure sensitized label on a selective basis to thousands of kitchen and bathroom-lavatory faucet mounts.



The merchandising theme of this program carried to the retail level is . . . "Companion-Name Selling for Double-Value with 2 Great Names 1

Our marketing concept demands that our products must move continuously and profitably to the manufacturer, and continuously and profitably from the manufacturer to the consumer. The cycle is complete when the manufacturer reorders from us. . . .

. . . We identify our customer's name prominently, and our name and product secondly. The accent is on the big brand-name which our customer's sales organization is schooled to sell . . . not on J&L . . .

Does it help us both to move our products continuously and profitably? Well, as the supplier in this marketing cycle we are running two shifts five full days. Our sales were up 52.6% during the past four months of the recession, over the same period a year ago, and our figures for April will come close to doubling this percent increase. . . .

GEORGE T. STEVENS SALES MANAGER, JONES & LAUGHLIN STEEL CORP., STRIP STEEL DIV., METALLON STAMPING PLANT CANFIELD, OHIO

Tax Cut

Dear Sir:

May I congratulate you for your courageous editorials recommending a tax cut now to stop the recession before it gets out of hand. I have no doubt, that this attitude will be resented by many of your readers who stick to the official position of waiting for something to turn up sometimes somehow.

It seems to me that the attitude



The Goodyear Tire & Rubber Company Announces A Major Break-Through In Plastics Engineering:

Plastics pioneering is not new to Goodyear.

Stemming from 1935, it has brought forth outstanding films—PLIOFILM for foodstuffs, VITAFILM for glamour packaging of textiles and the like, Vinylfilm for shower curtains, rainwear, industrial tapes and building barriers—each a standout in its field.

But in 1958, Goodyear has achieved a major development in the plastics field.

The product is VIDENE—a polyester film of unique characteristics and physical properties the likes of which have never before been seen.

A Major Milestone

Primarily, VIDENE is a laminating film of revolutionary qualities which will capture the imagination of development engineers, designers and business thinkers

LIKE OTHER FILMS, it can be used as a protective and decorative surface—

EXCEPT that it resists outdoor aging and weathering like no surfacing and laminating film before it.

EXCEPT that it has from two to eight times the abrasion resistance of films now being used.

EXCEPT that it can be laminated to most materials without requiring an adhesive.

EXCEPT that it can be reverse printed to reproduce virtually any surface or scene that can be color photographed.

EXCEPT that it can be "gloss controlled"—produced in high gloss and mat finish—embossed to obtain other finishes which are permanent and cannot be rubbed away with wear.

The Super Film

The many unique VIDENE characteristics are listed in the panel to the right.

Where Can It Be Used?

On almost any product that requires a surface, with almost any material that needs protection or decoration, in almost any package that needs moisture proofness and greaseproofness, self-sealing and freedom from pinholes (food included).

It adds new dimensions for decorating aluminumdoes a better job at lower cost in permanently embossed finishes and colors.

It can prefinish plywood, do it better than "natural hand rubbed" and current chemical-resistant finishes. and - through reverse printing - give random chip board the grain of any exotic wood.

It can give the exterior of automobiles lasting permanence and maximum resistance to salt spray and sand abrasion.

This is but a token list of fields where VIDENE will be a major factor.

Present Production Allocated

Present production is limited and on allocation-until Goodyear's huge new VIDENE facility is completed in 1959

TIMELY INVITATION: We urge you now to take stock of your product field in light of this new advancement-to examine the full potential of VIDENE -to make no little plans. Write now for the VIDENE story-address: Goodyear, Plastic Film and Sheeting Sales Dept. P-8727, Akron 16, Ohio.

-a unique polyester film possessing a combination of long-sought characteristics never before achieved in plastics.

Here's why it is destined to change the face, enhance the beauty and lasting durability of products in one hundred fields.

- · OUTSTANDING WEATHERING AND AGING RESISTANCE
- · AMAZING ABRASION RESISTANCE
- · OUTSTANDING GREASE AND CHEMICAL STAIN RESISTANCE
- · DIMENSIONALLY STABLE
- · EXCELLENT ELECTRICAL PROPERTIES
- · CAN BE APPLIED WITHOUT ADHESIVE TO MOST MATERIALS

- · STRETCH-LAMINATES BEAUTIFULLY
- · CAN TAKE EXTREMELY HIGH "DRAW"
- · OFFERS PERMANENT GLOSS CONTROL
- · CAN BE METALIZED. EMBOSSED
- . USEFUL AT TEMPERATURES FROM -20° TO 200° E
- . HEAT-SEALS WITHOUT SPECIAL SOLVENTS OR PREPARATION

An Exciting New Development AFFECTING THESE FIELDS: . Building Trade

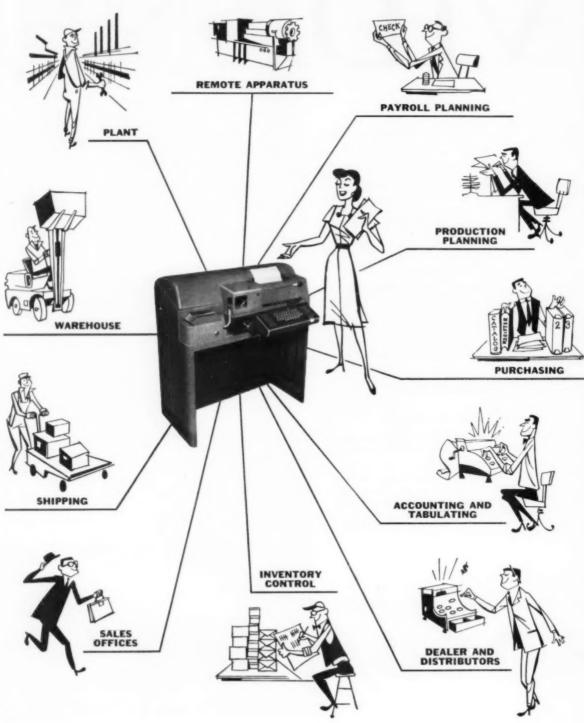
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- -and yours?

-A SIXTIETH ANNIVERSARY ACHIEVEMENT OF



Pilofilm, a rubber hydrochloride, Vitafilm, a Polyvinyl chloride, Videne, a Polyester film-T.M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

New Teletype Set



ties them together

At 100 words per minute

New Teletype Model 28 ASR Automatic Send-Receive Set . . . for your communication and data processing needs.

Here is a "packaged" set—a single, compact console with a complete array of facilities—to serve as a center for your message transmission and paperwork simplification systems.

Facilities for typing . . . tape punching . . . tape transmission . . . tape reception . . . sending and receiving "page" copy on message paper or multi-part business forms . . . tape as a byproduct of both incoming and outgoing messages . . . a host of remote controls. All customized to your requirements.

Operates like a typewriter for preparing invoices, shipping papers, etc.—but at the flick of a switch it goes "on-line" to tie together all your departments, all your plants—individually or in combination.

The Teletype Model 28 Automatic Send-Receive Set is NEW in every way:

- New Compactness. Never before so many facilities in so small a space. Console measures only 39 inches high, 36 inches wide, 18½ inches deep, with keyboard projection of 4½ inches.
- New Speed. Typing, transmission at 100 words per minute. Off-line tape punching at higher speeds.

New Features. Feature-packed for IDP and communications operations... The Teletype Model 28 ASR offers NEW approaches to more efficient applications: (a) for the first time, all your punched tape can have the characters typed right on it—so it can be read and handled easily, by anyone in your organization; (b) "robot brain" Stunt Box—a miniature unit that is actually a built-in switching and remote control system; (c) facilities for translating electronic impulses from business machines into printed messages for office use or transmission to other locations.

Requires less maintenance, too. Designed, like all Teletype equipment, for dependable "round-the-clock" service; the Model 28 ASR is equipped with all-steel clutches that need oiling only twice a year, plus other features that assure low maintenance. This is important to operating efficiency whether you prefer to buy or lease your Teletype equipment.

For more information, write to Teletype Corporation, Dept. 10D, 4100 Fullerton Avenue, Chicago 39, Illinois.

TELETYPE

SUBSIDIARY OF Western Electric Company INC.

CRUCIBLE STEEL COMPANY OF AMERICA

the company.....its products

How its nationwide system of warehouses benefits steel buyers

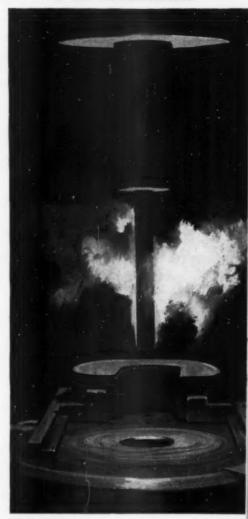
To users of special purpose steels, Crucible's wholly owned warehouse system offers real benefits. Dealing with a nearby Crucible warehouse permits a consumer to carry less inventory - freeing more working capital for other managerial considerations. It cuts down on floor space requirements. It makes more practical the purchasing of stock closer to size requirements, because Crucible stocks more sizes than most users can justify carrying in inventory. This effects savings not only in material costs, but in machining or other fabricating costs as well. And deliveries are prompt - same-day service is commonplace.

Crucible, a fully integrated specialty steel producer, owns and operates the largest nationwide chain of specialty steel warehouses in the country. Twenty-seven are conveniently located in key industrial centers from coast to coast, and more are being opened each year. As a producer. Crucible makes the most complete and diversified line of special purpose steels available anywhere. And most of these are carried in each of the twentyseven warehouses.

Furthermore, Crucible's entire warehouse chain is interlinked with an "electronic memory" computer and teletype system that provides customers with immediate information on the availability of even highly specialized steel items. While handling a telephone inquiry, a Crucible account salesman can locate type, size and quantity available anywhere in this country - and he can do it in a matter of minutes. This means that the steel wanted can be en route immediately.

For the address of the Crucible branch office or warehouse nearest you, or for technical data on any particular Crucible product, write to Crucible Steel Company of America, Dept. MD-05, The Oliver Building, Mellon Square, Pittsburgh 22, Pa.

4 of thousands



TOOL STEEL - A Mandrel like this, which is used for extruding brass tubing, requires a high degree of toughness at moderately elevated temperatures. That's why Crucible Halcomb 218 - a tough, air hardening, hat work tool steel - is often the first choice among tool makers, particularly for hot work applications on which drastic coolonts are used.

FROM CREATIVE CRUCIBLE - the one full range of special steels: tool and die: high speed; plastic mold; stainless; freeing, high-strength, wear-resistant and standard AISI alloys; hollow drill; agricultural steels and discs; heavy-duty coil springs; specialty alloys; permanent magnets; precision castings; cold rolled alloy and carbon spring steels; titanium and titanium alloys; stainless and alloy welded tubing; vacuum-meited metals.

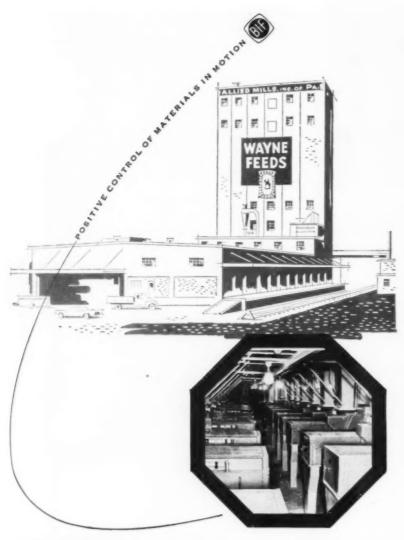


VACUUM-MELTED STEEL - Crucible vacuum-melted, borated stainless steel is now playing a vital role in nuclear applications. Only through vacuum melting can higher boron content stainless alloys be produced. And vacuum melting makes possible production of alloys free from impurities that are detrimental to nuclear reactor performance.



HIGH STRENGTH STEEL - To stop a jet dead in its tracks on an aircraft carrier takes an arresting hook of a very special steel. It was specifically for landing gear, arresting hooks and other tough applications like this that Crucible HY-Tuf® was developed. Because of its high tensile strength (over 230,000 psi) and toughness, cross-section can be reduced.





with OMEGA continuous feeders . . . 60 tons per hour, new mixtures in minutes!

Output up to 60 tons of feed per hour . . . formula changes with as many as 34 different ingredients within 3 minutes . . . and reports of formula checkout accuracy within tenths of one percent! This is the performance of Omega Belt Gravimetric Feeders at Allied Mills' new plant in Everson, Pa. Each day up to 20 different Wayne Feeds for poultry and livestock can be formulated at the twist of a dial on the master panel. Result: high production, high quality control, and low direct labor cost.

Here as in all industry B-I-F provides process instrumentation and equipment for positive control of materials in motion. Bulletin BU-1 gives details. Write B-I-F Industries, Inc., 549 Harris Ave., Providence 1, R. I.



B-I-F INDUSTRIES, INC.

and its divisions

BUILDERS-PROVIDENCE, INC.

OMEGA MACHINE COMPANY

PROPORTIONEERS, INC.

of business in general is not very meritorious to put it mildly. Most businessmen still stick to the traditional attitude of everyone for himself regardless of the effects of his decisions on the economy as a whole. The idea is that it is up to the government to worry about these over-all effects.

This is the first test of business attitudes in the face of a more serious recession, and it seems to me that they will have to learn much more than they have as yet about the responsibilities of business in dealing with a downward cycle. There is an urgent need to preach the gospel of taking a longer-range point of view by avoiding excesses in both directions. . . .

ERNEST H. WEINWURM ASSOCIATE PROFESSOR COLLEGE OF COMMERCE DEPAUL UNIVERSITY CHICAGO, ILL.

Last Laugh

Dear Sir:

Your Trend, Atomic Earth-Moving [BW—Mar.22'58,p160], implies that the idea of major carthmoving by nuclear explosions is original, though tardy with us. I seem to recall that about six long years ago . . . the Russians were proclaiming publicly that they would use nuclear explosions to blast out canals for irrigation and transportation and would move mountains of earth. I can also recall the scoffing, . . . public and private, . . . their statements evoked.

Was our predilection for underestimating them so strong that even their projection of possibilities for peaceful applications of a major order were erased from the memories of our top editorial people? Are Soviet imagination and foresight keener than those of the West?

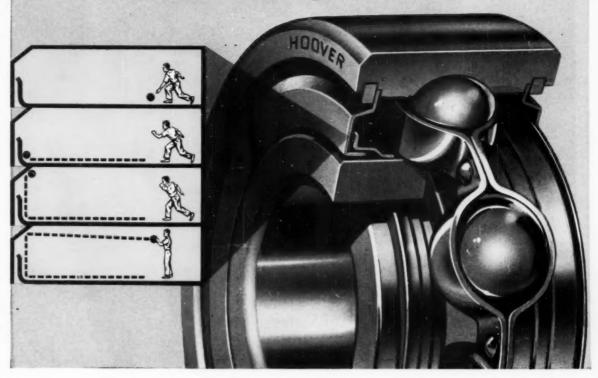
We took a while to develop the small nuclear explosions which we would dare to test under a mesa. But, presumably, the Russians also now have the same capability But they don't advertise all their successes and their failures. So, I am led to wonder whether they are not already well ahead of us also in this type of application of nuclear forces—if not experimentally, at least in their thinking.

LINCOLN R. THIESMEYER MONTREAL, CANADA

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 36, N. Y.

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HOW CHEMISTRY TAMES ELECTRICITY

... provides Class F insulation at Class B costs

NEW VARNISH that tames both heat and electricity to provide more efficient insulation has been developed by G-E chemists. The new material, called G-E 9520 Alkanex® Varnish, greatly reduces insulation size and weight, permits higher operating temperatures — enables electrical equipment to deliver more power per pound.

Development of G-E Alkanex Varnish presented General Electric researchers with these problems: The new material had to be chemically compatible with standard wire enamels, yet resistant to oil, moisture, grease and acid. It could not cause excessive swelling of silicone rubber leads. Preferably it would cure in conventional baking ovens at normal times and temperatures.

Out of the G-E laboratories came a modified polyester resin with all these properties. Field tests confirmed the laboratories' findings: The new varnish offered Class F (155°C) insulation protection at a fraction of the cost of Class H varnishes previously used for this range. It can be used to increase the efficiency of dry type transformers, magnet coils, stators, armatures and other electrical components.

For data on G-E 9520 Alkanex Varnish, write Dept. IMS, CHEMICAL and METALLURGICAL DIVISION, General Electric Co., Schenectady, N.Y.

Progress Is Jur Most Important Product

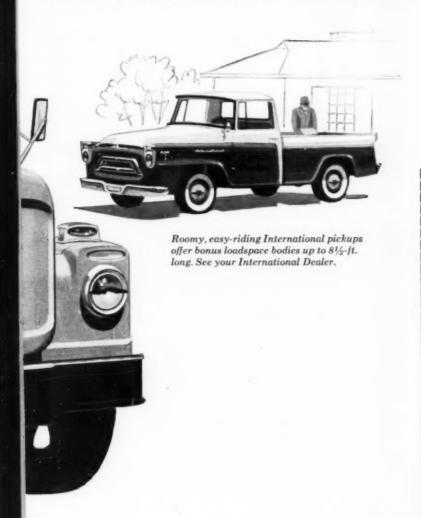
GENERAL (ELECTRIC

Silicone Fluids, Emulsions, Resins, Rubbers • Phenolic Molding Powders, Foundry Resins, Industrial Resins • Fused Magnesium Oxide • METHYLON® Coating Intermediates and Resins • LEXAN® Polycorbonate Resins • Mica Products, Varnished Cloths and Papers, Electrical Insulating Varnishes, Permafils, Wire Enamels, IRRATHENE® Insulation • Molded Plastics and Mycalex • TEXTOLITE® Decorative and Industrial Laminates • Man-Made Diamonds • Vacuum Melted Alloys • CARBOLOY® Cutting Tools • Permanent Magnets



INTERNATIONAL TRUCKS

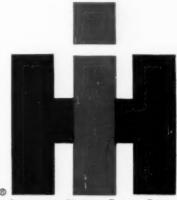
These are rugged trucks picked at random from the world's most complete line.
International Trucks, of course.
Engineered to combine *economy* with *comfort* and an *ease of handling* you can best understand after one turn at the wheel.



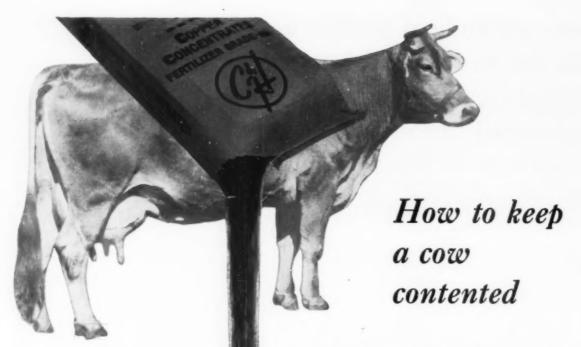
cost least to own!

NOW, FOR ANOTHER YEAR, INTERNATIONAL TRUCKS ARE SALES LEADERS!

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Strange as it may seem, copper is essential to the well being of a cow... and to other livestock and poultry as well. The soil in many areas is deficient in copper. Result... an unbalanced livestock diet... a discontented cow.

Calumet Brown Copper Oxide is widely used to correct such deficiencies. Used as a pasture fertilizer it improves crop yield and greatly increases the copper content of the forage. Used as a feed supplement it provides a much needed health building mineral.

Calumet Brown Copper Oxide is produced by our Calumet Division from copper bearing materials by an intricate leaching process. The result is a copper oxide of exceptional quality and purity.

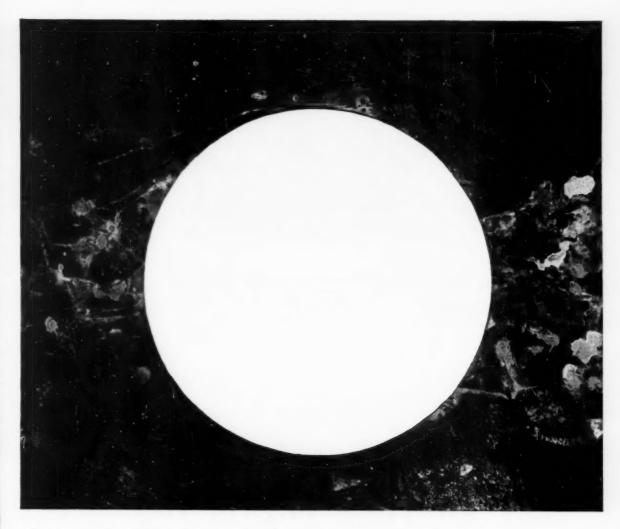
This operation, which wrings from the raw material the last fraction of value is not only an indication of the company's engineering and manufacturing ability, but also of the foresightedness of C & H management.

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Columbia-Southern hydrogen peroxide knows where the yellow went

Cotton is the most important cash crop grown in the United States. Twenty-five million people depend on it for all or part of their income. With a total all-use consumption of nearly 4.5 billion pounds, cotton holds firmly to a 67% domination of the textile fibers market alone.

But cotton, with all its desirable properties, needs some corrective working over. It comes from the fields and through the gins tinged with a little yellow, a little gray. Tiny "motes," bits of plant leaf or stem, cling tenaciously. Initial processing in the mill sometimes heightens the fibers' yellowish cast, as sizing and other materials are added.

Treatment in a caustic soda solution . . . very often Columbia-Southern caustic . . . conditions both fiber and mote for effective bleaching.

That's when hydrogen peroxide comes into the picture . . . and the yellow goes. This highly reactive compound's "extra" atom of oxygen—each molecule is made

up of two atoms of hydrogen, two of oxygen—is impatient to leave. It readily deserts its brothers and cousins to oxidize and bleach the unwanted "off" tones. The result: uniformly gleaming white goods, ready for further mill processing and manufacture into shirts, sheets, towels, and other products.

This triumph is one more illustration of the many ways Columbia-Southern industrial chemicals like hydrogen peroxide, caustic soda, soda ash, chlorine, ammonia, muriatic acid, and other basic or specialty chemicals work behind the scenes. Our Columbia-Southern chemicals, technical assistance, and other services help hundreds of manufacturers and processors to build better products at less cost.

The Columbia-Southern Chemical Corporation, One Gateway Center, Pittsburgh 22, Pennsylvania. Offices in principal cities. In Canada: Standard Chemical Limited.

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A Subsidiary of Pittsburgh Plate Glass Company



They go swimming in the sun..

Hot springs in the patio! Big-volume water heaters, originally designed for commercial uses, now adding months to the fun of owning a swimming pool

When A. O. Smith introduced the *Burkay* volume water heater, they hardly expected it would lead to such scenes as above.

But the warm fact is that thousands of swimming pool owners (old and new) have decided *Burkay* is just the ticket for taking the chill off the water. No waiting for the warming sun. No need to quit swimming that first cool day of fall.

Actually, thanks to *Burkay*, many pool-owners are now braving even winter swimming conditions. They enjoy outdoor swimming Sun Valley style even with snow on the ground.



Companion to the Burkay, this Permaglas gas-fired boiler is ideal for "wet-heat" systems installed in homes.



Burkay water heaters fill the needs of "doit-yourself" and commercial laundries, many versatile industrial uses.



Restaurants, hospitals, schools, hotels — all need hot water in quantity. A Burkay excels in sanitizing service.



swimming in the snow

Surkay commercial gas water heaters

Pictured are four basic types. Burkay Models 718, 20-D and the Permaglas home heating boiler feature all-copper construction, offer up to 420,000 Btu. input per hour. Model B-97 is the all-new Burkay, developed especially for restaurants, apartment houses and motels. Big brother to A. O. Smith's famous Permaglas water heater (proved in more than 4,000,000 homes), its new kind of glass-protected steel* assures years of dependable high-volume service. Want details? Write for free, illustrated bulletin, stating your requirements.



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A. O. Smith International S. A., Milwaukee 1, Wisconsin, U.S.A.



*HYDRASTEEL Process covered by U. S. Palent No. 2754222. Other patents pending.



Mr. H. Walter Graves, Vice President of Albert M. Greenfield & Co., Inc., management agents, explains Traffic Sentinel® door operation to prospective tenant. Doors stay open wide to allow passengers to enter elevator.



Mr. Graves stresses the fact that elevator doors begin to close only after the *last* passenger has boarded the elevator. None of the passengers was "threatened" by a premature door closing.



Here, Mr. Graves demonstrates how closing elevator doors will reopen instantly when a passenger crosses the threshold and breaks the electronic Traffic Sentinel beam which controls the door mechanism.



Mr. Graves invites the prospective tenant to join him in a test ride in the Westinghouse *operatorless* elevator equipped with Traffic Sentinel controlled doors. Notice how elevator doors close quickly after last passenger has entered.



PENNSYLVANIA LUMBERMENS MUTUAL

INSURANCE BUILDING is a completely reconstructed office building, offering every modern convenience to its tenants. When in Philadelphia, treat yourself to a luxury test ride in the newly installed Westinghouse *operatorless* elevators equipped with Traffic Sentinel controlled doors.

Architects: Thalheimer & Weitz

MANAGEMENT V.P. USES "SHOW" BUSINESS

TO DEMONSTRATE WESTINGHOUSE TRAFFIC SENTINEL®
ON OPERATORLESS ELEVATORS

The Pennsylvania Lumbermens Mutual Insurance Building in Philadelphia is an excellent example of what remodeling and modernization can do for well-constructed, well-designed buildings.

The former 12-floor, 200-room Ritz-Carlton Hotel was converted into an up-to-date 17-story office building. Included in this major modernization program is a bank of six high speed Westinghouse *operatorless* elevators equipped with Traffic Sentinel controlled doors. These elevators, together with "magic" Traffic Sentinel doors, provide the finest and fastest in vertical transportation. Passengers are moved quickly and safely to their desired floors. There is no undue waiting . . . no unnecessary loss of floor-to-floor time. Here is passenger convenience and service at its best. Existing buildings need modern elevatoring to compete with new buildings—and prospective tenants are demanding it, more and more.

If you are planning to modernize your present elevator system to meet today's heavier passenger traffic demands, the people to talk with are in your nearest Westinghouse Elevator Division office. They'll help you with any elevatoring problem relating to modernization or new building installations.

YOU CAN BE SURE ... IF IT'S Westinghouse

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Photo Hayden Planetarium

ANYONE FOR THE MOON?

Yes, many of us perhaps, and in the foreseeable future . . . maybe tomorrow . . . maybe next month. But certainly moon travel, unmanned at first, then complete with men and complex scientific equipment, will tell us more about the Universe and the laws of nature which govern our existence. ➤ The same resources and technological skill . . . greatly augmented by the now vital aeronautical, astronautical, and atomic brain-power which Republic has developed over more than a quarter century . . . are now concentrating on solutions to every problem . . . designed to strengthen the Free World which we insist must and will live.

TESTED BY TIME ... POISED FOR THE FUTURE



FARMINGDALE, LONG ISLAND, N. Y.

Designors and Builders of the Incomparable TOTO NETERS - E- FOR T

HOW HERCULES HELPS...



KEEP COWS CONTENTED—A number of Hercules ingredients contribute toward healthy, more productive livestock. Dalpac® BHT, for example, is a high quality feed antioxidant that promotes full assimilation of essential nutrients and protects vitamin potency. Hercules para-cresol is the basis for intermediates used in the production of growth stimulants and other pharmaceutical chemicals. Sprays based on Thanite® protect animals from annoying and often harmful insect pests.



PIONEER NEW PRODUCTS—Pro-fax*, Hercules' new polypropylene, makes transparent film with exceptional resistance to chemicals, oils, greases, and will withstand heats to 300° F. Rigid enough for use in overwrap machines, new Pro-fax films have excellent impact and tear strength and can be heat-sealed with conventional equipment.



UPGRADE FOOD FLAVORS—Monosodium glutamate from the Huron Division of Hercules is being used by an ever increasing number of food packers to enhance the quality of their products. MSG increases taste appeal—and sales—of a wide variety of processed foods.

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900 Market Street, Wilmington 99, Delaware



CHEMICAL MATERIALS FOR INDUSTRY



BUSINESS OUTLOOK

BUSINESS WEEK APR. 19, 1958

April's business returns should give a much clearer picture of what's ahead than do last month's batch of statistics. That is possible if for no other reason than that an unusually harsh winter has finally passed.

It's undoubtedly true that the recession's pattern has felt the heel of a hard winter—helping some businesses, hurting others.



Over-all, the March figures reflect the continuing slide in the output of big-ticket items in the economy.

- The Federal Reserve Board's industrial production index registered a two point drop to 128.
- Private housing starts continued below an annual rate of 900,000 for the second month in a row.

But note that personal income and consumption, though sliding, have been declining a good deal less rapidly.

Total **personal income** going to consumers showed scarcely any change from February. And **retail sales** slipped only 2.3% from last year's March.

Homebuilding's lackadaisical performance in the first quarter is especially disquieting. So many hopes hang on its recovery.

But bad weather gets more than the usual blame for last month's low starts figure. Even April may be too early for signs of a real upturn.

The grip of cold weather noticeably affected building activity in the South where homebuilding had been gaining against the national pattern.

Many builders still think that loosening up the FHA and VA programs, aided by an overflow of mortgage money, should bring improvement by summer.

And government experts point to this year's upturn in FHA mortgage applications as a hopeful sign.

But sellers of new homes face a market in which many young wage-earners are unemployed or on short hours. It's possible that only a real revival in VA-backed mortgages (in addition to the FHA's) can bring better health to the housing industry this year.

Weather affects the income and spending pattern, too.

Higher food prices, caused in part by cold weather, helped boost farm income in March by \$1-billion (annual rate) over the year-ago figure.

And food sales, of course, have been a big gainer as retail volume in general has edged downward.

Retail food stores in March continued to show a 6% margin over last year, according to the Commerce Dept.'s early report.

Sales of all stores reflect the one-sided nature of the recession.

Total retail sales have fallen 6.5% since the peak reached last August. But buying of softgoods has dropped only 2.6%.

Hardgoods, on the other hand, dropped nearly 15% in the same period. In fact, sales of durables have dropped a full 11% since January.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK APR. 19, 1958 Thus, if autos (the biggest of the durables) should stage a spring comeback (BW—Apr.12'58,p20) total retail sales may begin to level off.

Consumers are still better off, in terms of dollar income than they were a year ago. Their estimated take in March was \$341.4-billion.

That leaves a year-to-year gain of \$1.2-billion.

But bear in mind that prices have risen meanwhile. In terms of real income or purchasing power, the customers lost 2% in the last year.

Wage-and-salary workers—who make up the mass market—have done worse in terms of income and purchasing power than has the country as a whole.

Their income is now running about $1\frac{1}{2}\%$ below a year ago. And they're receiving about $3\frac{1}{2}\%$ less in terms of real purchasing power.

But for the economy as a whole, their pay losses are made up by gains elsewhere. And the unemployed themselves recapture about 30% of their losses in jobless pay.

Rises in such government payments as Social Security and unemployment compensation bring them \$4-billion higher than last March. This gain more than offsets the \$3.9-billion loss suffered in wages and salaries.

Other groups—better sheltered against recession—are actually raising their incomes.

Better prices for farmers are reflected in gains in proprietors' income.

More state and local government employees, including school teachers, show up in a year-to-year gain of \$1.2-billion in income from government work.

And the continuing increase in numbers of service workers account for a \$1.7-billion rise in their incomes.

The Federal Reserve's report for March only confirmed widespread evidence that production has eased during the month.

March's figure was only two points below February's 130—but it put the index at the lowest level since the 1954 recession.

There's some cheer in the fact that the rate of decline slackened a little in most major categories. In fact, the industries grouped as "transportation equipment other than autos" (comprised chiefly of aircraft) showed a small upturn.

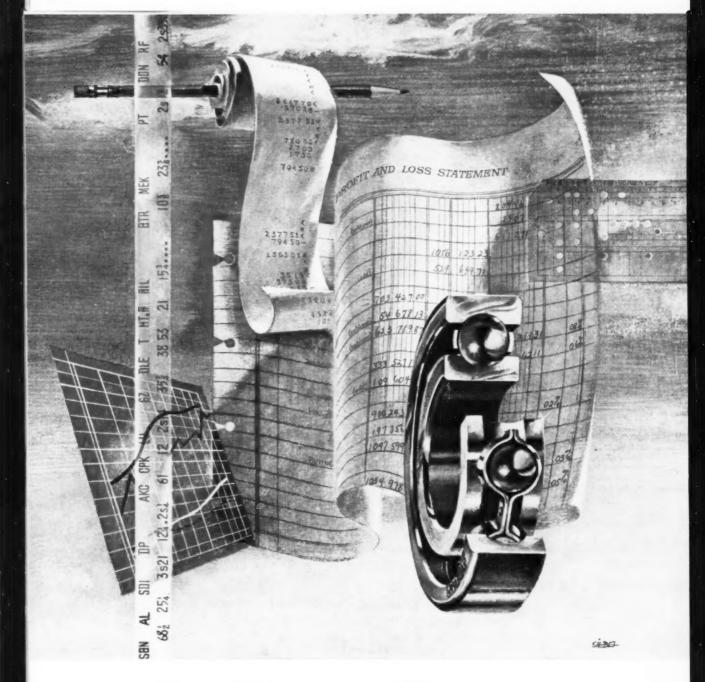
The two biggest electrical manufacturers reported a better tone in their new orders this week.

General Electric's Pres. Ralph J. Cordiner announced that new orders exceeded sales during the first quarter. March orders topped the two preceding months.

At GE's Hotpoint division, refrigerator output was stepped up in response to better sales.

And Westinghouse canceled a layoff at its Columbus, Ohio, appliance plant because of a "slight increase" in sales.

Contents copyrighted under the general copyright on the Apr. 19, 1958, Issue-Business Week, 330 W. 42nd St., New York, N. Y.



Parts determine profits

Few parts make so great a difference in profit-and-loss figures as bearings. For a single bearing can halt your production, boost operating costs sky-high and otherwise burn up profits. How can you get profitable bearings? Rely on 愚宠声 for impartial bearing analyses. No other manufacturer offers as much experience in making bearings profitable for users as 愚宠声—producers of a complete line of ball and roller bearings.





Office for a successful man

You can tell immediately the kind of man he is. He's a leader, He's reached the top of his profession. His capabilities, his position and his personal tastes are all reflected perfectly by his office. He chose a Steelcase office and he specified Steelcase for his general office and for all other offices in his organization. You see here the styling, the engineering and the construc-

tion that have made Steelcase the world's leading manufacturer of fine steel office furniture. When you are ready to furnish your own office — general or private — join the growing list of important companies who specify Steelcase. The cost is surprisingly modest. Steelcase Inc., Grand Rapids, Michigan. In Canada: Canadian Steelcase Co., Ltd. Don Mills, Ontario.



This is a section of Inland Steel Company's new general office.



With Our Compliments: A copy of our new full-color Desk Catalog, for the asking. Have your secretary address Dept. B.

STEELCASE INC

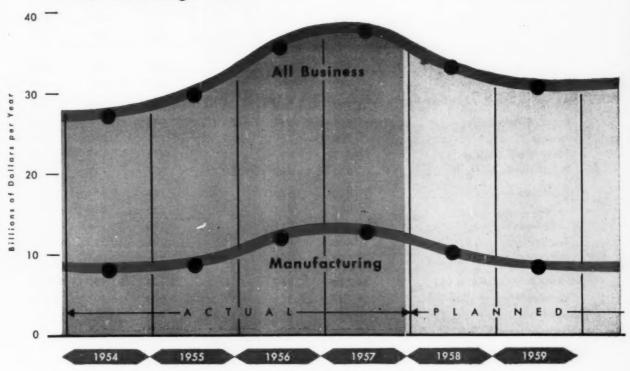
BUSINESS WEEK

APRIL 19, 1958

NUMBER 1494

CAPITAL SPENDING:

Still declining - but . . .



Data: U.S. Dept. of Commerce, SEC, McGraw-Hill Dept. of Economics.

Headed for Stability in 1959

From McGraw-Hill's 11th annual survey of capital spending, just completed, one over-all trend emerges: U. S. business is making a strategic shift of emphasis.

From 1955 to 1957, it was spending at boom rates to expand capacity.

 Now, it's turning to spending aimed at creating the conditions for renewed economic growth.

Immediately, this shift means a decline of total capital spending from \$38.4-billion in 1957 to \$34-billion in 1958 and \$31.3-billion in 1959 (chart above). But, by the end of this year, business capital spending will have already sagged to just about the expected 1959 rate. And at that rate—approximately one-fifth below the 1957 peak—

business expects the capital spending curve to hold stable through 1961.

However, the manufacturing sector—which feels the heaviest impact of the recession—is planning relatively heavier cutbacks: from \$13.6-billion in 1957 to \$11.1-billion in 1958 and \$9.1-billion in 1959. Manufacturers expect their capital spending to stabilize at that 1959 figure and to level out—at about one-third below the 1957 peak.

• Seeds for Growth—Basically, the survey reveals the defensive response of U.S. business to existing excess capacity and to low-profit—and no-profit—operations. But American business knows that the best defense is a good offense. Most dramatically, this offensive thrust shows up in the sharp

planned increase—in the midst of an over-all capital spending decline—of expenditures for research and development. Business is now planning to boost research outlays from the 1957 record of \$7.3-billion to \$8.3-billion this year—a 14% rise—and to nearly \$10-billion by 1961—35% above the 1957 level. The big aim: to create the new and better products on which their markets can expand again.

At the same time, business will be putting heavy emphasis on replacing and modernizing its present plant and equipment. The drive is aimed at more efficiency, productivity, and profitability—the "within-the-plant" generators of growth.

The picture, then, is of a massive

Here's how CAPITAL SPENDING plans break down...

	1957 Actual	1958 Planned	1957-58 Change	1959 Pre	1960 liminary Pla	1961 ons
	(millions of dollars)			(millions of dollars)		
ALL BUSINESS	\$38,437	\$34,011	-12%	\$31,322	\$30,608	\$29,684
ALL MANUFACTURING	13,647	11,129	-18	9,138	9,178	9,130
Iron & Steel	1.844	1,309	-29	733	748	726
Nonferrous Metals	980	627	-36	339	305	302
Machinery	1,275	1,043	-18	887	916	954
Electrical Machinery	599	623	+ 4	604	652	691
Autos, Trucks, & Parts	1,058	709	-33	638	651	612
Transportation Equipment			S LIVE S			
(aircraft, ships, RR eqpt.)	544	528	- 3	333	300	303
Other Metalworking	942	690	- 27	631	656	688
Chemicals	1,724	1,569	- 9	1,349	1,349	1,282
Paper & Pulp	811	527	- 35	443	474	450
Rubber	200	172	-14	191	210	210
Stone, Clay & Glass	572	493	-14	426	455	471
Petroleum Refining	853	768	-10	737	752	647
Food & Beverages	850	819	- 4	795	654	662
Food	627	597	- 5	525	480	483
Beverages	223	222	0	270	174	179
Textiles	408	347	-15	296	313	324
Misc. Manufacturing	987	905	- 8	736	743	808
NONMANUFACTURING (a.)	24,790	22,882	- 3	22,184	21,430	20,554
Petroleum Industry (a.) (b.)	5,797	5,371	- 7	5,604	5,407	5,331
Mining	450	392	-13	244	224	216
Railroads	1,396	796	-43	796	868	911
Communications	4,604	4,114	-11	4,053	4,372	3,913
Electric & Gas Utilities	6,197	6,354	+ 3	5,733	5,339	4,918
Commercial	7,199	6,623	- 8	6,491	5,972	5,912

G. Petroleum refining included under both manufacturing and petroleum industry, but excluded from nonmanufacturing total, and counted only once in total all business.

maneuver, being carried through with calculated caution and realism—and no panic—in response to what looks like a new phase for the economy. The rapid expansion of the postwar period is expected to give way to a period of more moderate growth between now and the early 1960s.

No Fast Relief—In terms of the immediate impact of capital spending on the recession, the new McGraw-Hill survey offers cold comfort to those who argue that the pressure will be off soon. For the heaviest wallop of the spending decline will be felt through the rest of this year—and probably into early

1959. Actual business outlavs in the early part of this year were still being strengthened by the carry-through of projects initiated during the lush boom period. As 1958 wears on, more and more of these projects will be winding up, and fewer new ones will be coming along to take their place. Though the McGraw-Hill survey does not ask companies to make quarterly estimates of their planned outlays, it's apparent that the business investment trend all year will be gradually downward.

As the table above shows, heaviest cuts in capital spending this year will be by the railroads (43%). Many manu-

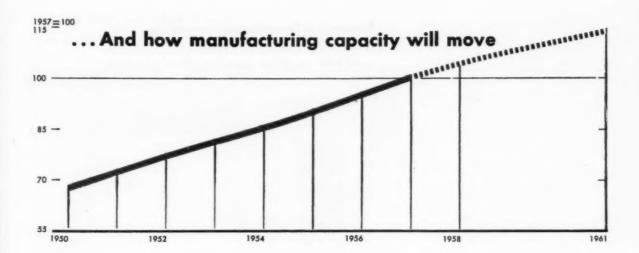
facturing industries will be cutting back sharply, especially nonferrous metals (36%), paper and pulp (35%), autos (33%), iron and steel (29%), and "other metalworking" companies (27%)—all of them industries dogged by excess capacity.

Not all manufacturing industries, however, are cutting back. The electrical machinery industry—with many new products and a special boost from electronics in the defense program—is increasing expenditures by 4% in 1958 and plans still higher outlays in 1959-61.

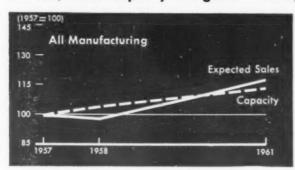
Makers of aircraft and other transport equipment, also affected by the

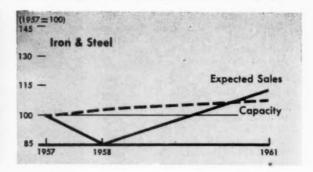
b. Does not include bonus payments for leases. Includes oil pipelines; does not include gas pipelines (included under gas utilities)

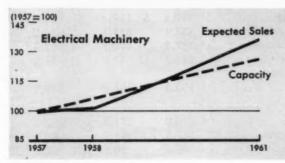
Data Dept. of Commerce , S.E.C., McGraw-Hill Dept. of Economics.

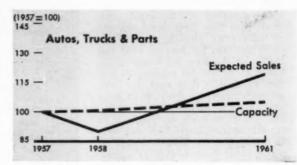


In 1958, excess capacity will grow - but by 1961 rising sales should narrow the gap









Data: McGraw-Hill Dept. of Economics

defense setup, have revised programs upward. They now plan 1958 capital spending within 3% of the 1957 level, though plans for future years are still indefinite.

• Chemicals the Champs—The chemical industry, though down from 1957, is holding to a relatively high level of spending—\$1.6-billion in 1958 and \$1.3-billion for each of the next three years—making it the biggest capital spender among manufacturing industries. Giant du Pont, for example, has just announced plans to dish out about 10% more this year than 1957's record \$220-million.

Contrasting with other industries (and reflecting the longer lead time involved), the electric and gas utilities report that their programs will peak in 1958, then drop in 1959-61. However, the sharpest part of this drop is in the plans of gas pipeline companies, which are affected by uncertainties about rate regulations.

I. Moving Up, More Slowly

The new McGraw-Hill survey provides fresh insight into the nature of the 1958 recession—the cause of which seems to be that investment overshot

consumption (BW-Apr.5'58,p25). As the chart above shows, capacity has been climbing fast for the past decade. Industry has been trying to keep it running ahead of rising orders—enough ahead to provide some spare capacity for operations at optimum efficiency.

At the end of 1954, with the economy still climbing out of the last recession, manufacturing industry, according to McGraw-Hill estimates, was operating at 84% of capacity. By the end of 1955, manufacturers were running at 92% of capacity. And some industries—like steel, electrical machinery, nonferrous metals, petroleum refining, autos

and trucks-were running close to their capacity limits. That's basically what pushed the capital spending boom in

1956 to new heights.

However, by the end of 1956, as new capacity came into use, manufacturing industries on the average were running at only 86% of capacity-though some producers were still working close to their ceilings. Steel producers, for instance, were still running at 98% of capacity at the end of 1956.

· Capacity Gap Opens-The capital spending boom swept on into 1957though it was clearly leveling. But when sales began falling off in the latter part of the year, more and more excess capacity began to appear. By the end of 1957, manufacturers were operating at an average of 78% of capacity.

In 1958, industrial production is still slipping off (the Federal Reserve Board index was down to 128 in March, compared with its December, 1956, peak of 147), and capacity is still moving up on the momentum of investments planned earlier. As a result, there's so much excess capacity that business quite naturally might be expected to respond by curtailing its addition of

new production facilities.

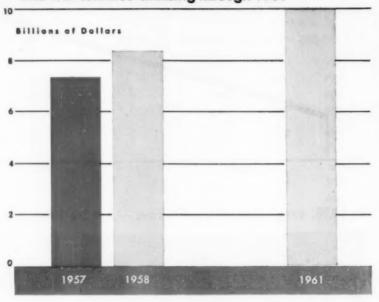
Indeed (charts, page 33), manufacturing industry does intend to expand capacity more slowly in the years ahead. In 1956, manufacturing capacity grew by 6%; last year by 5%; this year it will be up another 4%. But during the three vears 1959-61, manufacturers are planning to raise capacity only a total of 10%-or a bit more than 3% per year. Some industries will go much more slowly than that: Steel companies and oil refiners are planning to raise capacity less than 5% between 1958 and 1961, and the auto and textile industries plan to increase capacity by less than 4% in those three years. But there are exceptions the other way, too: Chemical, electrical machinery, and nonferrous metal producers are planning to expand capacity nearly 20% by 1961. In making long-run plans to expand capacity, as the charts on page 33 suggest, the key factors are expectations of future sales, present spare capacity, and preferred operating rates.

 Hopes for 1961—Manufacturing companies, as a group, expect sales to be down 2% this year, but by 1961 to rise 18% above the 1957 level. Significantly, industry is not figuring on a long slump in the economy.

Though companies expect sales to be up 18% by 1961, they are scheduling only 14% more capacity. If these plans are carried out, and sales rise only as much as expected, idle capacity will be reduced and the average operating rate raised by 1961-but only to about 82%.

In the past, companies have preferred to operate around 90% of capacity. The operating rate estimated for 1961 may,

Research & Development spending will be up sharply in 1958 and will continue climbing through 1961



Here's the pattern, by industries

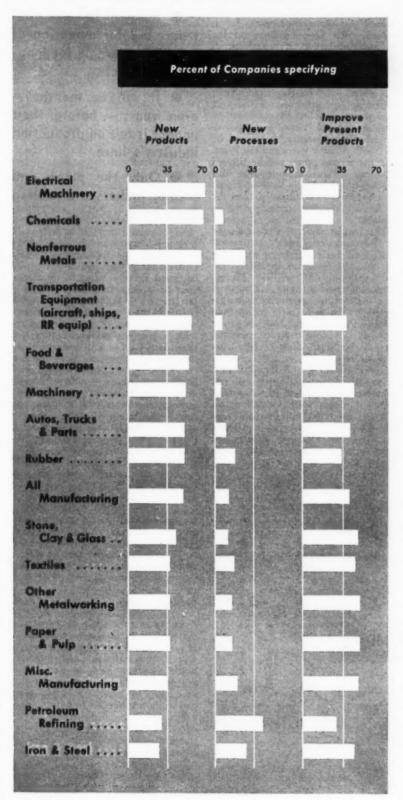
(Mi	llions of Do		
	1957	Planned 1958	Planned 1961
Primary Metals	\$ 119.4	\$ 124.2	\$ 154.0
Machinery	582.1	611.2	672.3
Electrical Equipment	1,367.2	1,490.2	1,862.8
Aircraft and Parts	2,336.7	3,117.9	3,845.3
Fabricated Metals & Ordnance	193.3	206.8	248.2
Professional & Scientific			
Instruments	295.0	271.4	252.4
Chemicais & Allied Products	567.5	595.9	685.3
Paper & Allied Products	48.4	50.8	57.9
Rubber Products	76.0	77.5	93.0
Stone, Clay & Glass	63.8	67.6	83.1
Petroleum Products	231.4	245.3	294.4
Food & Kindred Products.	86.6	95.3	114.4
Textile Mill Products &			
Apparel	35.8	38.7	43.7
Other Manufacturing !	931.9	894.6	1,055.6
ALL MANUFACTURING	6,935.1	7,947.4	9,462.4
Nonmanufacturing			
Industries	346.0	348.1	388.0
ALL INDUSTRIES	7,281.1	8,295.5	9,850.4

^{1.} Includes autos, tobacco, lumber and wood products, furniture, printing and publishing, transportation equipment other than aircraft and autos, and miscellaneous manufacturing industries.

Data: McGraw-Hill Dept. of Economics

BUSINESS WEEK

Companies spend R&D money for different purposes in different industries



then, mean one of three things: (1) Manufacturers are still planning to expand capacity too much, or (2) they have underestimated sales potential, or (3) the 90% rate may have been appropriate to a boom economy but not to a highly competitive "normal" one. It may be that new technology—and competitive pressure to cut costs and bring out new products—might boost capital spending without a return all the way to 90% operations.

II. Full Steam in the Labs

New technology is, in fact, the key to industry's plans for increasing sales. In manufacturing, companies expect that 12% of 1961 sales will be in new products not made in 1957. Last year, the plan was that new products would make up 10% of 1960 sales. Industry has greatly enlarged its research programs (chart and table, page 34) in order to develop the new products and to install new lower-cost processes.

An important share of industrial research and development is intended to improve existing products, as opposed to completely new products and processes (table, left). Asked to specify the main purpose of their research programs, 41% of companies reported it was product improvement, 48% new products, and 11% new processes.

· Quick Pavoffs-Most companies expect their R&D programs to pass bevond the laboratory and market development stages in the next four years. The 1958 McGraw-Hill survey, for the first time, asked companies: "How soon do vou expect vour research and development expenditures to pay off?" More than 90% of the companies reporting estimated the payoff period would be five years or less. A surprisingly large number-39%-expected their research to pay off in less than three years; much of this quick return appears related to product improvements that don't require lengthy research. Only 9% of the companies surveyed-primarily those that do a lot of basic research-estimated that it takes six years or more.

The impact of research on current plans for new capital equipment is still very gradual—especially for short-run investment plans. Nevertheless, the number of companies building or adapting facilities to make new products has been growing markedly in recent years, and the continuing upsurge of research spending promises to keep the trend moving.

• Silver Lining?—Paradoxical though it may seem, recession, like war, may be a stimulus to technological progress and innovation. The stress of adverse business conditions, as economist Hans Apel has noted, may lead to increased substitution of capital for labor, climination of the least productive producers, and an improvement in managerial and labor efficiency.

III. Ready for a Storm

In fact, the classic argument in favor of a business recession is that it reestablishes the conditions for continued growth. And the new McGraw-Hill survey suggests that this argument is far from meaningless.

Nevertheless, the decline in business investment, like the recession itself, remains a bitter pill for American business. And it raises a major danger. If the decline in the economy becomes more serious than business is expecting, plans for capital spending might be revised downward even more drastically. This year the survey asked companies not only what they actually planned to spend, but also what they regarded as the maximum and minimum expenditures they would make under two opposite assumptions-"favorable economic conditions" or "if business declined from the current level."

• Ax Poised—The answers were striking: They revealed that 1957's actual capital outlays were close to the maximum that companies now expect any time up to 1961—especially in manufacturing and mining, where excess capacity is concentrated.

In fact, of course, business is planning to spend at an average rate nearly 20% below the 1957 level during the

period 1959-61.

The minimum estimates dash the hopes of those who have supposed that widespread fluctuations in business in-

vestment-the historic bane of eco-

nomic stability—were a thing of the past. Companies reported that, as a group, they might spend as little as \$22-billion a year—compared with the 1957 record of almost \$39-billion—if business did continue dropping.

· Newcomers Lose-Findings on the regional distribution of capital spending in 1958 (map, below) will also be a blow to sections of the country that have mainly benefited from past capital outlays. The changing regional pattern is another reflection of the shift from capital spending for expansion to spending for replacement and modernization. Biggest relative losers will be the South Atlantic states and the West. And the biggest gainer will be the old Northeast. Plans indicate that this region will get a bigger share of capital spending by manufacturers in 12 of the 15 major industries for which data are available.

The biggest regional shifts planned are by nonferrous metals companies, which will put one-third of their outlays into the Northeast in 1958, compared with only 13% in 1957. Electrical machinery companies will increase their share of the investment dollar going to the South Atlantic region from 5% to 14% and to the Northeast from 39% to 45%, and cut their spending share in the North Central region from 45% to 31%.

Concentration is still high, though, in several industries. Autos will put more than four-fifths of its investment dollars into the North Central region in 1958. The textile industry will spend 60% of its cash in the South Atlantic states, and the machinery industry will invest just under 60% in the North Central states.

Military

- Many of the new contracts are for extension of existing orders or for longrange projects.
- It will be months even years — before their impact is felt on production industry's lines.
- Only the plane and missile makers are feeling optimistic.

Defense contractors are still waiting for the impact of increased military spending, although military procurement figures released by the Pentagon are rising—from \$1.3-billion in January to \$1.5-billion in February.

In city after city this week, contractors say that behind the bustle of defense buying announcements they face these hard facts of the Pentagon's current spending program:

 The bulk of the contracts is based on long-known military procurement plans. In many cases, the new business represents only follow-up orders for existing production.

 The gap between planned spending and new contracts is a long one.
 The filtering down process takes time.

• The military services are awarding contracts carefully, selectively, and deliberately, concentrating so far on the needs of missile age warfare.

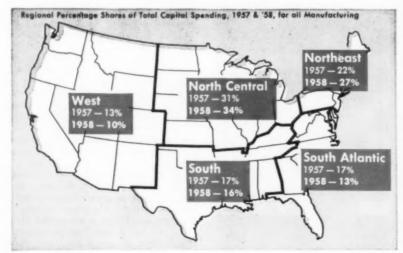
 Many of the contracts being let are for research, development, and engineering projects. Few of these contracts will generate employment or materials and tool buying, and it will be months or even years before they will be translated into sizable production.

I. Stabilizing Effect

In essense, the spurt of defense orders-extension and new contracts-is simply sustaining defense employment, output, and materials purchasing that would otherwise have dropped. It is not delivering the kind of impact that produces plant expansion, employment, and inventory surges. In Washington, a Pentagon economist says the over-all effect of defense buying has been to stabilize defense industries, to prevent even wider-spread unemployment and plant shutdowns.

• Gloom-Among defense industry contractors who talked with BUSINESS WEEK

As capital spending slows, more of the money will be spent in older regions of the U.S.



Spending Has Little Punch So Far

reporters this week, the defense buying program generated impatience and gloom. According to a Midwest maker of cooling equipment, "a lot of stuff is being talked about, but I haven't seen anything sizable yet." A supplier of military heating equipment, who reports a definite decline in invitations to bid, says, "It looks like the Defense Depthas slowed down procurement, rather

than speeded it up."

A heating unit supplier says "If anything, the government is dragging its feet on getting out specifications. We have to pry it out of them." A year ago, the company had a backlog of orders. These are filled, and no new orders are in sight. A supplier of jet aircraft components says he has "a building full of production machinery gathering dust while it waits for new government orders." He adds that an Air Force contract has been hanging for a year.

• Bright Spots—All contractors, however, are not this gloomy. In fact, big plane manufacturers on both coasts are optimistic, mainly because the industry has adjusted to lower sales and employment has been stabilized. In addition, the industry has had a \$250-million rise in its backlog, and some companies are moving into commercial and missiles fields where prospects of orders seem better. Douglas Aircraft, for instance, has anti-missile projects in research and development, which it hopes will lead to production programs.

On Long Island, Grumman is selling 300 to 500 supersonic interceptors to Japan, and has orders for 20 turboprop aircraft designed for the executive and commercial markets. It has no new contracts this year with the Pentagon but savs "there are signs of interest in some

of our proposals.

Optimism like that of the aircraft industry appears elsewhere, but usually among giant companies such as General Dynamics, IBM and General Electric, which were hurt the least by lastvear's cutbacks and this year's recession. General Dynamics' Electric Boat Div., for instance, has new orders for six nuclear submarines. General Electric says it was affected "only somewhat by cutbacks last year," and that sales "showed strong gains last year." IBM says it has no new orders, but existing computer orders have been holding at a high level.

II. Harsh Words

More often than not, though, defense contractors have little good to say about current defense buying. Subcontractors, especially, speak in the hardest terms. A Detroit metalworking subcontractor says that prime contracts are just being let, so he expects no subcontract production for at least eight months. An Air Force procurement spokesman in Chicago says that many more small companies than ever before "are crying for defense contracts, and by the tone of their letters, some are pretty desperate. They have to have something by June 1—that's as long as they can hold out without laying off heavily."

A Wisconsin truck maker says "it will take the government until June to get their outlets lined up and in a position to buy." Even then, he expects no actual increase in defense business. "I think a lot of this is just talk." he says

morosely

In Philadelphia, subcontractors have laid off hundreds in the last six months, and expect to continue. One says, "I presume that when the government says it will let a lot of defense contracts it will—but when that will affect us I couldn't say." Another says "It won't happen until July, August, or September."

· No Quick Remedy-A vast number of contractors and subcontractors show little faith that a big upturn in ordering will appear. Even among those who won extensions of orders or new contracts, there is no expectation of any sharp sales jumps. Thus, most suppliers are acting accordingly. Few are buying materials or tools to any extent, and very few are increasing employment substantially. A few are taking on specialists, and a few, such as the aircraft companies, report a slight, but steady rise in production hiring. Only one company-Hallicrafters Co. in Chicago-reports its employment is up substantially. Its defense contracts-airborne electronics, and communications-are up 50% from last year, and as a result, so is em-

A few other bright spots appear, too. A metals company and Goodyear Aircraft in Phoenix—on the basis of new orders for aircraft and missile com-

ponents-have been re-hiring.

So far, however, most contractors are not hiring, or are limiting new employment to specialists. Emerson Electric Mfg. Corp. in St. Louis has "experienced increased activity" in defense engineering programs, and is starting to hire engineers again, but it will be one or two years before it will get into production. Even Chrysler Missile Div., which received \$98.3-million in new contracts for work on the Jupiter and Redstone missiles, is spending most of that money for research and development. It has, though, allocated \$20.6-

million for production of the Redstone and is hiring about 100 people a week. Its employment is expected to reach 9,000 at year's end from a February level of 5,000. But the new hiring so far has been confined generally to technical people.

In Cleveland, the Cadillac Tank Plant has received a contract extension for M56 light gun carriers. But it means only that production will continue at

the present level.

III. Rein on Purchasing

Faced with a slow and deliberate tempo of defense buying aimed at stabilization rather than an upturn, contractors are doing little about expanding their own purchases. Even those with new orders are holding purchasing to a minimum. For those with extensions of orders, no increase in the materials buying rate, of course, is necessary.

For instance, Chrysler, which got a \$17.1-million contract for Dodge trucks as an extension of an existing \$14-million contract, will do no retooling. American Motors Corp. is in the final stages of negotiating a \$5-million tooling contract for the Mighty Mite, a small Army utility vehicle. But it is months away from the production stage and won't be buying materials for a

while.

Despite the absence of any upturn produced by defense buying, contractors generally say little about blaming the Defense Dept. Very few charge that procurement officers are oblivious to contractors' problems. Some, however, still smart over dealing with the services. And a few-a Long Island aircraft maker, for one-seek the firm comforts of commercial markets. An extreme example of one critic-an oilfield tankmaker-puts it this way, "We've had contracts with the government, but we won't take any more of them if we can help it. I'm fed up with working with those Eagle Scouts.'

Another, a boat builder, complains that he submitted an unenthusiastic bid for small military boats, figuring the bid at three times the civilian price. He was awarded the bid, but when he read the fine print, he found he had to package the boats for overseas shipment—and the cost far exceeded the boat's price.

• Letter Contracts—Another source of sporadic complaint is the Pentagon's letters of intent. Although the letters are designed to speed ordering until formal contracts can be assigned, some contractors scoff at this. One has a letter for months, but can't produce because he still has no contract to help him set production schedules.

Bethlehem Steel Merger's Big Day

Opening shots in litigation, biggest business merger case in years, lack setting of pageantry but manage to hit sensitive targets.

Trial is being speeded by extensive agreement as to the facts, through stipulations by both sides.

Next will come the testimony of high officials, getting closer to the heart of the debate over merger.

A score of people arose from the oak benches in Room 1506 of the Federal Court Building in New York City's Foley Square precisely at 10:30 a.m. Tuesday. A judge entered the room and stood at attention himself. Before him, a bailiff chanted the anachronistic cry of "Ovez"-the formalized summons that has opened "English Law" court cases for centuries. Thus began Civil 115-328-a suit that need never have

Civil 115-328 arose almost 45 months ago, when the Justice Dept. complained that a proposal to merge Youngstown Sheet & Tube Co. into Bethlehem Steel Corp. would violate the Clayton Anti-Trust Act (BW-Aug.24'57,pl19).

Ironically, the same proposal was litigated in sensational detail almost 30 years ago. It was won, too-but only after a delay so long that the economics of depression had strangled its attractiveness. So there was no merger then, and that's why the issue arises now.

You'd think the trial would be endlessly long, but the prospects are it will

be rather short. You'd think antagonists at such ideological swords'-points would agree on nothing. But a deluge of material, which would prolong a trial for weeks, has been stipulated by both parties. (This is an attorney's way of saving both sides are agreed on the facts and content to enter them in the record without testimony or cross-examina-

· Quiet Overture-With \$2.9-billion of assets and one-fifth of the nation's steel capacity at stake, you'd have thought the captains and the kings would all be there. They weren't though-and probably they won't be until next week.

What opening day drew was some public relations men, some reporters, an attractive girl who took notes furiously -"a rich man's Madame DeFarge," someone called her. There were also some citizens who proved to be witnesses, and there were attorneys-about a dozen of them, all told. If you had anticipated that this trial would see the banners waving and the brass bands playing, vou couldn't have been more

There wasn't even any oratory. Abel R. Kiviat, deputy court clerk, asked Allen A. Dobey, of the Justice Dept., if he were ready.

"We are ready," Dobey replied. Then he picked up a document that pinpoints the facts and the numbers on which the case depends, and asked that it be considered "an addendum to the

stipulation, not an exhibit."

• First Witness-Thus, at 10:33, Kiviat was swearing the first government witness, a soft-spoken Cleveland businessman-president of the Upson-Walton Co. As the witness sat down, Dobev moved to a lectern that had been located so ingeniously as to make it almost impossible for anyone but the judge and counsel to hear.

Briskly, Dobey set out to fashion a noose with which to strangle Bethlehem's ancient dream of a merger with Youngstown-the thing it needs most if it's ever to close in tightly on United States Steel. For his garrote, Dobey used one of Bethlehem's favorite prod-

ucts-wire rope

Glen H. Sheldon, the first witness, makes wire rope. So does Bethlehem. Youngstown does not, but it does sell rope wire-a semi-finished steel product which, after stranding and closing, makes wire rope. Sheldon, after an objection by a Youngstown attorney, testified that he buys most of his rope wire from Youngstown and that, in turn, Youngstown buys considerable wire rope from him. Dobey's slow, seemingly disjointed, questioning, the volume of detail on prices and procedures, Sheldon's soft voice, and the miserable acoustics, made it pretty hard for the audience to be sure exactly what was being developed.

· Making a Case-Dobey seemed to be painting the picture of a small businessman who was thoroughly committed for his principal raw material to a supplier who wanted to merge with a major

competitor.

Thence you could infer that the merger threatened to cost him a supplier, a customer, more money for freight charges (since any new supplier would be located considerably farther away) and some serious, if transitory, loss of efficiency while his plant adjusted to the characteristics of whatever new wire he'd buy if he had to switch away from the Youngstown product.

• Spring Fever-After 37 minutes of direct examination, Dobey turned Sheldon over to the companies for cross-examination. The first 17 minutes of this was conducted by Whitney North Seymour, of Simpson, Thatcher & Bartlett, Youngstown's counsel. About this time, a jackhammer went to work tearing up the street outside. Thereafter, the case really was conducted in private.

Confused by such intricate testimony as could be heard between blasts of the jackhammer-and enervated by a magnificent spring day-one reporter fell asleep. He missed six minutes of cross-examination by Bruce Bromley, a partner in Bethlehem's Wall Street law firm of Cravath, Swaine & Moore.

· And a Rally-For the first time, then, it looked like a lawsuit. For Bromley scorned the lectern to stand by his seat at the table-and to ask his questions more of the audience than the witness. Thereupon, at 11:33, Judge Weinfeld recessed the trial for a few minutes.

That brought things to life. There was no end of scurrying as attorneys

conferred with witnesses.

At 11:45, Judge Weinfeld re-entered the court, and witness William L. Rochester, of Culpeper, Va., president of Rochester Rope Co., which he has served for 51 years, was sworn. This time, it was attorney Donald F. Melchior who conducted direct examination for the people.

His questioning seemed even more diffident than Dobey's-but the jackhammer fell silent at noon and then it became easy to detect what Melchior was getting at. Here, the government was telling Judge Weinfeld, is a small businessman who is being driven out of business by a remorseless profit squeeze. It arises from continuously higher prices of rope wire while wire rope prices are lower than those of four years ago.

• Out in the Open-And at 12:17 came the shocker. Finally, after almost two hours of testimony which pointed to it, there was finally established the fact that reciprocity exists in the wire rope business.

Not that anyone used the word.

That's a word that business never uses out in public, and that businessmen almost never discuss candidly with outsiders. It means, of course, that

in Court

when you can-or must-you buy what you need from the company that buys from you. Businesses, in short, exist in part by doing each other's wash.

Witness Rochester, who shattered all precedent by snorting that, of course, Youngstown bought rope from him because he bought wire from it, came within an eyelash of going to

jail that afternoon.

• Close to Contempt—It started, just before a lunchtime recess at 1:30, when Scymour questioned Rochester about other of his suppliers than Youngstown. Politely but firmly, Rochester explained that he wouldn't answer the question because it would give away trade secrets. Seymour didn't push very hard, but Bromley did after lunch.

First they skirmished over who really does the volume in the wire rope business. Then they tangled over metalurgy—a subject which Rochester said he knew nothing about and which Bromley proved he doesn't know at all well. Then they were back to Rochester's other suppliers—and Bromley wouldn't take no for an answer.

That was all Rochester would give, though, and after a candid appeal to Judge Weinfeld, Rochester made it pretty plain he'd ponder a 30-day contempt sentence rather than answer. Weinfeld observed that a contempt sentence wasn't necessarily limited to 30 days—then directed Rochester to

answer.

He didn't, but Bromley, his point established, rephrased the question so that Rochester felt he could-and did. · Price-Cutting-Thereafter until he left the stand-an undefeated man-Rochester responded freely to Bromlev's pointed questions about pricecutting in the wire rope business. It exists, Rochester vowed, and it's severe. He won't make any money on it, he declared, but Rochester will sell wire rope-when it can get an order-at a discount of about 35%-almost double the standard 20% discount of several vears ago. On the Pacific Coast, he added, bargains are even better. Out there, a 40% markdown is standard. Everybody's doing it, he said almost bitterly, and for Rochester Rope, it means sadly sagging profits.

Bromley let him step down at 2:50. As he strolled away from the Federal Building through Foley Square, Rochester could hear new noises to distract the greatest business lawsuit

in years.

It was the telecast of the Phillies-Redlegs ball game. For New York not to have a game on opening day was at least as confusing as the low-pressure lawsuit.



BOEING 707's test performance opens way to start of commercial service for . . .

U.S. Jets By Yearend

Pan Am and American Airlines speed up schedule for ocean and transcontinental flights.

If all goes well, Pan American World Airways' new Boeing 707-120 jet transports—like the one pictured above—will be whisking passengers across the Atlantic ahead of original expectations. Pan Am has moved up the scheduled inauguration of its first 6½-hour New York to London jet flights from "early in 1959" to some time before the end of this year. American Airlines transcontinental jet service should also take off before New Years Day.

What makes the speedup possible is the Boeing transport's stellar performance so far in its certification test trials by the Civil Aeronautics Authority. If the planes continue to star in their final exams, the stepped-up inauguration dates will become a reality. The entire certification process usually takes from

nine months to a year.

• Timetable—Pan Am, Boeing Airplane Co.'s first jet customer, expects to take delivery of its first jets by late summer or early fall—some four months ahead of the original schedule. By yearend, Pan Am would be ready to put about six of them on the New York-London and New York-Paris runs.

American Airlines will get its first jets late in the year, so should have no trouble getting its New York-Los Angeles and possibly New York-San Francisco jet service well under way by January. American's original target date for its first flight, with all the accompanying hoopla, was at 12 noon sharp on June 15, 1959. Now it plans to have perhaps a dozen jets flying by then.

Trans World Airlines is hot on the heels of the two front-runners, and expects to put its first Boeing jets in service "early in 1959."

• Getting the Jump—Executives of both Pan Am and American are patting themselves on the back for taking the gamble of early orders for the first jets to come off the production lines.

They are sure their \$6-million craft will give them a commanding jump on competition, and convinced that once the planes are in service no one will want to fly long routes except by jet. American would like nothing better than to repeat its 1937 coup, when as the first airline to put Douglas DC-3s in service, it toppled United Air Lines from its perch as leading U.S. carrier.

• Problems—But the stepped-up switch

• Problems—But the stepped-up switch to jets also means speeding up preparations. Ground and maintenance crews are already in training, and flight crews are familiarizing themselves with new cockpit procedures and handling problems. Once the planes are delivered, the lines hope it won't take more than 10 days to two weeks to check out crews, fly the routes to rehearse landing and airport problems.

At first, the jets will be handled on the ground just about as piston engine planes now are. New terminal facilities allowing jets to taxi right up to the ramp and load passengers from a second story level (BW-Nov.30'57,p90) won't

be ready until 1960.

For now, the one big difference will probably be in towing jets out on the taxi strip before starting their engines—since present airport facilities can't handle the jet blast and noise of the powerful engines. This cuts down on efficiency of operation. Then, too, the

bigger planes—the 707-120 will carry 109 to 152 passengers, against 60 to 85 for a piston-engine DC-7—are sure to mean more congestion at terminals.

But both Pan Am and American executives are confident that the competitive advantage of being there first will offset any disadvantages.

 Next in Line—Other airlines will benefit from the Boeing speedup, too. But the next ones on the waiting list—Continental Air Lines and Braniff Airways, won't get their jets before spring or summer of next year.

Other jets are also on the way. Douglas Aircraft Co.'s DC-8 prototype rolled out early this month. Douglas will have several planes in CAA testing by summer, expects to have six to nine planes completed by yearend, but their service date depends on progress in getting the planes certificated. Deliveries of Convair's 880 jet transport aren't expected before late 1959.

All in all, airplane manufacturers are signed up to deliver 354 jet transports through 1961. Boeing has 168 orders, Douglas 138, Convair 48.

• Finances—The planes, all selling in the S6-million bracket, represent the largest financial burden ever undertaken by airlines. Earlier deliveries, however, are not expected to impose any extra financial strain, since most airlines have arranged their financing so the money will be available whenever needed. Payments for the new ships start about six months before delivery.

president of Brewster-Bartle Drilling Co. and himself an active independent.

The chief reason for any drilling under present conditions is "to protect leases we have from drainage by somebody else," says George Strake, one of the biggest independents.

That's why "the boys with some money to gamble on new discoveries" are quitting Texas, says Strake, and looking in other states where production controls aren't so tight. He lists Arizona, Utah, and the Dakotas as being most attractive to him.

• Going Where?—It's still a minor shift. Comparing rigs in operation on Apr. 1 this year and a year earlier, you find Colorado down from 39 rigs to 24 rigs and New Mexico down from 128 to 100. Utah rose from 26 to 37 rigs, North Dakota from 26 to 39, Missispip from 14 to 34. But these are all small figures, either way, compared with Texas' 1,032 last year or even its 740 this Apr. 1.

California isn't getting any immigration of wildcatters. According to Pres. Howard Keck of Superior Oil Co., it is practically impossible to make a profit by drilling for oil in that state.

The big companies, meanwhile, go on developing their overseas reserves. Latin American reserves rose nearly 17% last year, paced by Venezuela; Indonesia took a big jump, and Africa has reserves that will begin to show up in production by yearend. After its Suez troubles, even with a net loss of more than 30% in Iraq alone because of a still damaged pipeline, the Middle East has increased production 4.7% in the last year.

 Offshore—Between the landbound domestic drilling and the operations in foreign lands, the big companies have one intermediate type of venture—offshore drilling along the Louisiana and Texas coasts. But this is far too expensive for the independent.

Besides, the offshore picture is as bleak as that on land. On Apr. 1, only 52 rigs were operating off Louisiana, compared with 97 a year earlier, and four off Texas, half as many as on Apr. 1, 1957.

Instead of drilling principally to find reserves, the offshore operators are mostly drilling development wells for production. That's because the offshore leases, like the drilling costs, are expensive, and the companies are trying to get as much as possible out of them before they expire.

 Mortality Rate—This kind of trouble is nothing compared with what the independents are facing, in the opinion of the independents themselves. Quick profits in years gone by attracted many newcomers to their ranks, and many of the marginal operators, along with those whose credit has been overextended, are going flat-broke.

Oil Men Cut Back Drilling

Crude oil glut will curtail drilling to about 18.3% less than last year, with a heavy mortality among independents. Much of what is being done will be limited to exploration.

"There's just too damned much oil now-why drill for more?" says the typical Texas independent oilman these days.

Then he turns around and drills another wildcat hole. The independent oil operator has to be an optimist or he wouldn't be an operator at all.

Nevertheless, he is drilling fewer wells in these days of a national crude oil glut, much as it hurts him to curtail his exploring—and thereby his income. He's drilling one hole instead of two, or two instead of three.

Hughes Tool Co., which keeps track of drilling as a measure of its market, estimates that drilling in the U.S. this year will run 18.3% below last year. The first quarter was a big 26.5% below the boom year of 1956. A knowledgeable source in the oil supply business estimates that 48,800 wells will be drilled in the U.S. this year, compared with 53,300 last year. Wells are being pushed deeper all the time, but footage is destined to drop from 219-million ft. last year to around 200-million ft.

• Hurt Worse—Independents do a large share of the discovery work, and they are hit hardest when they can't sell new oil. But even the big companies, with more money to work with and better control over a market for their oil, are retrenching.

For example, Humble Oil & Refining Co. has cut its drilling budget 30% below last year's, with plans to drill only 578 wells, compared with last year's 897. Average cost per well, whether it hits or not, amounts to about \$70,000.

On the other hand, Gulf Oil Corp.

astonished many of its competitors a couple of months ago with its "happy days" statement, tied to announcement of a capital outlay of \$564-million this year—largest in the company's history—plus \$128-million for wildcatting and other geophysical exploration, nearly three-fourths of it in the U.S.

• Production Cut—The hard fact, though, is that a surplus of crude oil has been forcing major producing states to cut their monthly allowables. Since the first half of 1956, the U.S. as a whole reduced production by 876,000 bbl. a day through last month, and Texas absorbed 739,000 bbl. of this cutback. From the 1957 level, Texas alone reduced production by 1.2-million bbl. a day in March. That's more than all crude oil imports allowed by the voluntary quota program.

April figures will show an even

April figures will show an even deeper drop for Texas. The Texas Railroad Commission allowed nine days of production in March, only eight this month. Other states have production controls, but not such tight ones. Oklahoma and Louisiana, for instance, slightly increased their allowables for this month.

With improvement in the weather, Texas put more drilling rigs back in operation—740 rigs in the first week of April, up from 699 in mid-March. But a year ago at the same time, 1,032 rigs were working in Texas.

Packing Up—The drilling that is being done is chiefly exploratory, as distinguished from developing what has been found.

"There's no point in drilling development wells when we can't sell the oil we've got now," says W. O. Bartle,

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Philadelphia to Richmond, Va.	\$1 <u>10</u>	80¢	20€
Dallas to New Orleans	\$1 75	\$125	35€
Detroit to Miami	\$250	\$180	50¢
Cleveland to San Franc	isco \$330	\$235	60¢
Add 10%	Federal Excis	se Tax	

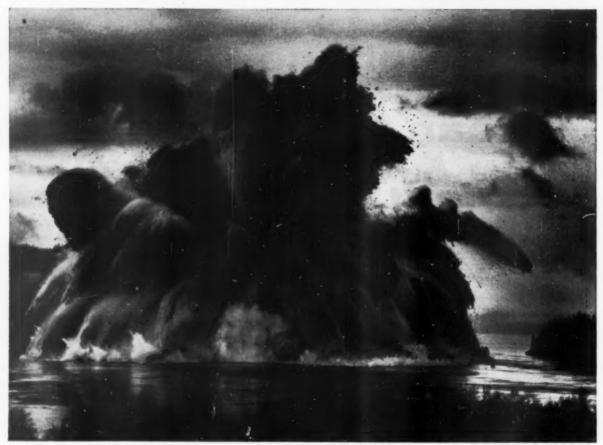
BELL TELEPHONE SYSTEM











The Big Bang at Ripple Rock

Canada's Hydrographic Office is still probing the Alaskan Waterway for new chart data, but it's already clear that the big underwater explosion (BW-Apr. 12'58,p36) was a smashing success. Purpose of the big bang, which detonated some 2.7-million lb. of explosives, was to blast away a navigation hazard known as Ripple Rock, in the Alaskan waterway northwest of Vancouver. And it's the last of Ripple Rock that you see bursting into midair in the photographs.

The big bang on Apr. 5 was calculated to shear off the peak of the un-

derwater reef to a level some 47 ft. below low tide (BW-Mar.29'58,p78). Previously, low tide clearance was a scant nine feet, and the channel was plagued by whirlpools and fast currents that made it next to impossible for a ship to navigate this stretch except at periods of slack water at high tide.

The Canadian Hydrographic Office is rushing new depth and current surveys for ship's pilots. But further settling is expected to provide even greater clearance.

Though Ripple Rock is gone, mariners are playing it safe with the caution of fighters who respect an old opponent. Until the Hydrographic Office issues an official death notice for Ripple Rock, ships are steering clear of it.

The new channel will speed shipping considerably, though no one yet knows just how much time boats will save. The tidal current in Seymour Narrows still is fast—from 10 to 12 mph.—so only relatively fast ships will be able to buck it. But for ships going with the current, and those fast enough to buck the tide, the navigating job will be a lot easier.



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The Markem Method for your product The right combi-

nation of Markem machine, type, and specialty ink for marking your product depends on such things as the size, shape and surface of the product; operating speed; size, colors and variables to be marked; integrated "in-line" use of machine or location by itself; operations before and after marking; conditions marking must withstand.

Given these facts, Markem recommends the right machine, type and ink for you. For sporting goods, V-belts and saw blades . . . to fuses, molded plastics and movie film magazines — Markem has direct, offset and screen process printers; rubber plates, typebars and masterplates; and more than 10,000 currently used inks, in all colors and characteristics ranging from invisible "breath image" types to the new solid form, instant drying "Touch Dry" compound. Thousands of examples of the Markem Method are working for industry today, not only in product marking, but in packaging, plastics, electrical and electronic, textile, shoe and other industries as well.

Marked by Markem means instant identification — from production line to final user — by a clear, attractive, lasting mark that costs less to put on, and saves more in time, money and added sales, than any other mark. Find out what Markem can do for you now. Write Markem Machine Company, Keene 33, N.H.

MARKEM

In Business

Merger of Civil Defense Agencies Asked to End Overlapping, Bickering

The Administration is drafting a plan to reorganize the nonmilitary aspects of national defense. The plan's major feature: merger of the Office of Defense Mobilization and the Federal Civil Defense Administration.

The plan is based on a study last year by McKinsey & Co., the management consulting firm. McKinsey reported that the two agencies are stepping on each other's toes and recommended their consolidation.

Both agencies have authority to prepare post-attack and stockpile programs, and in many instances have come up with plans that duplicate or conflict with each other. FCDA, for instance, has worked up an elaborate plan for assessing damage to population centers in event of nuclear attack, whereas ODM's thinking is concerned primarily with damage to industrial facilities.

Under the new plan, ODM's authority to ask restriction of imports that would hurt domestic industries producing essential defense goods would be continued.

Rocketeer von Braun Gives House Group His Preview of What's Coming in Space

Dr. Wernher von Braun, the Army's rocket expert, this week aired his views on space problems as the House Select Committee on Astronautics & Space Exploration began hearings on U.S. programs. Among Braun's opinions:

The Russians may beat us to the moon; the Army has many months of developmental work before it can attempt a moon shoot; unmanned space platforms have little military value, but manned platforms will be possible within five years; within two or three years, a man will be put into orbit and returned to the earth; the biggest threat to the U.S. is the speed with which Russia is turning out scientists and engineers.

Antitruster Demands Hughes Eat Words Of Company or Help Reopen Case

Antitrusters kept on the jump this week, totting up mergers, filing charges, ferreting out new cases, and even angrily blasting a company that had just signed a consent decree.

· Victor R. Hansen, the Justice Dept.'s antitrust chief, demanded that Howard Hughes, president of Hughes Tool Co., publicly disavow company statements that, according to Hansen, imply the company signed a consent agreement merely to avoid expense and inconvenience. If Hughes won't retract, Hansen demands that he join the government in seeking to have the consent decree vacated, so that the cartel charges on oil drilling equipment can be brought to trial.

• The Federal Trade Commission reports there were 226 mergers in the first quarter, down a shade from the 238 in the 1957 period.

· Possible charges by FTC are waiting on the final report of investigators into mergers of five of the largest West Coast makers of fir plywood in the past few years.

· Dresser Industries, Inc., and National Lead Co., the No. 1 and No. 2 producers of barite, were accused by FTC of increasing their dominance by the unlawful acquisition of competitors.

· Admiral Corp. was hit by FTC charges that it gave discounts to some retailers but not to others, with price

differentials running up to 16%.

· The Rudolph Wurlitzer Co. signed a consent decree to end charges that it illegally restricted the sale

and distribution of juke boxes.

· The Agricultural Dept., sometimes criticized as failing to enforce the 1921 Packers & Stockyards Act, accused a packer, the Klarer Co., and its subsidiaries, of failure to compete in hog buying. In the same case, several livestock dealers were accused of selling at an agreed profit of 15¢ a head.

Detroit Sells Safety-Minded Governors On Idea That It's Really Up to Them

The sagging automobile industry made one big sale last week. In a two and a half day session, its Automobile Manufacturers Assn. managed to convince four state governors-representing the highway safety committee-that Detroit had indeed cooked up safety devices, but the public wouldn't buy them.

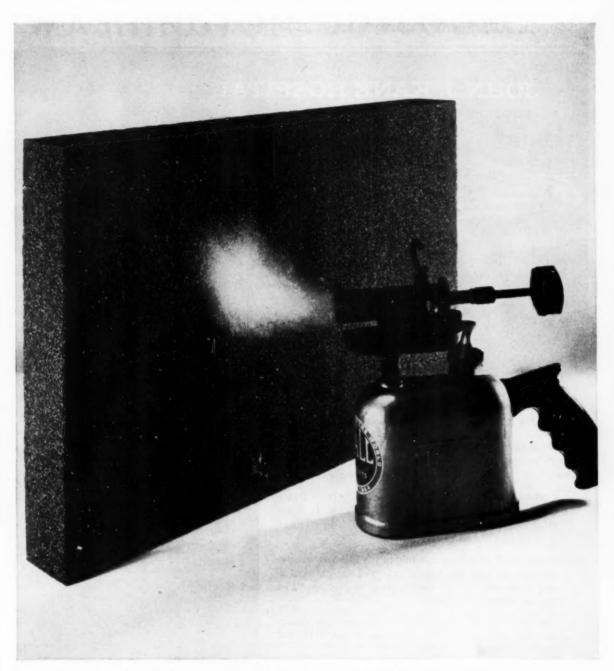
The governors had arrived primed to accuse the auto people of sacrificing safety to the sales charms of speed and chrome. They went away agreeing with the Detroit argument that the real need was for extensive driver indoctrination in the use of existing safety devices.

Lead and Zinc Industries Gang Up For \$1-million-a-year Hunt for Markets

A \$1-million-a-vear joint research program to develop new markets for lead and zinc was announced this week by the American Zinc Institute and the Lead Industries Assn. The program, heralded for some time by rumors, will be underwritten by 19 Canadian, South American, Australian, and U.S. producers.

Robert Hendricks, head of the organizing committee, says the aim will be to develop markets so broad that there will be no interference with competition among producers. And the research will not interfere with existing programs such as AZI's quest for a new finishing technique for die cuttings or LIA's general survey of new fields for lead research.

Trade circles see the main significance of the joint program in the indication that the two industries will try to cope with their own surpluses instead of wailing for government help.



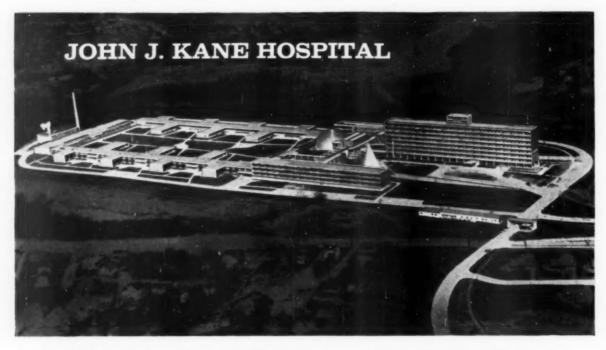
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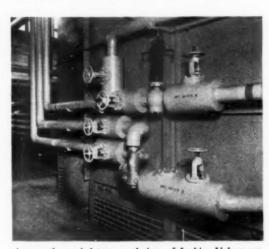
Constructed on a 126-acre site eight miles from downtown Pittsburgh, the \$22,000,000 John J. Kane Hospital, with its sprawling array of related buildings, is more like a community.

Selection of operating equipment for this vast institution for the care and rehabilitation of the indigent ill was dominated by one specification: maximum value for the taxpayers' dollars.

The specification "JENKINS" for all valves for plumbing and heating and other services in the 2100-bed hospital speaks for itself.

No other valves have such a long record of efficient, low-cost service. To building experts and plant operating men, the Jenkins Diamond on a valve has been a mark of extra value for nearly a century. Yet the valves that bear this famous symbol cost no more. Jenkins Bros., 100 Park Avenue, New York 17.

In the buildings in America's future ...



Among the varied types and sizes of Jenkins Valves are these Iron Body Globe and Gate Valves controlling high pressure feedwater.

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WASHINGTON OUTLOOK

WASHINGTON BUREAU APR. 19, 1958



Pres. Eisenhower will let the economy sweat a bit before coming up with any new, drastic recession remedies. Developments of the week make this increasingly clear.

Note the veto of the Rivers & Harbors Bill and the reasoning behind it. This legislation always is on a political "pork barrel" basis. Eisenhower had an added objection—the projects wouldn't make jobs for many months.

There's no popular clamor for a tax cut. This was a shocker to members of both parties'who visited constituents over the Easter recess. The grass roots were supposed to demand tax relief. But it didn't happen.

So, Eisenhower will sit tight. He seems convinced that the steps taken up to now will be sufficient to halt the business slide and turn things up. His reliance is on easier credit—now defined by Reserve Board officials as "active ease"—and a sharp, quick rise in spending. As Eisenhower's experts figure it, the annual spending rate will jump some \$8-billion by yearend. Eisenhower doesn't see the problem of the unemployed as over 5-million out of work. His figuring is that the problem is only jobs for something like 2-million. This assumes 3-million unemployed as normal.

Eisenhower sees the tax cut pressure on Congress as political—staged by Democrats hoping for an advantage in the fall Congressional elections.

Ex-Pres. Truman's appearance was no happenstance. Here's the background on what happened: The Democratic high command was convinced that the Easter visit of congressmen with the voters back home would show an overwhelming demand for tax relief. So, it looked around for a forum. The House Banking & Currency Committee had a thick sheaf of so-called anti-recession bills, most of them sponsored by Democrats. A general hearing was decided on, with Truman as the lead-off witness, followed by Democratic governors, labor leaders, and some spokesmen for business. The hearings are still going on, but they are chilled by the lack of public support for tax cuts. The fact is that voters associate big deficits with rising living costs. Apparently the general public would rather pay high taxes than higher prices.

The Democrats likely will wind up with a political advantage. It's the sort of situation where they can hardly lose.

Few economists in Washington see better times before November, when the Congressional elections roll around, no matter what Washington does.

What the Democrats want is a record, and they are writing it. The party's leaders are plugging tax cuts, along the Truman line. So are the big labor union bosses, Meany and Reuther. Former Federal Reserve Board Chmn. Marriner S. Eccles supported Democratic plans for a tax cut in testimony before the Senate Finance Monetary Committee this week—advocating cuts in income and excises of from \$6-billion to \$7-billion. Come November and times are still tight, the Democrats will point to Eisenhower's stand against tax cuts. If Eisenhower should reverse himself before the voting day, and he might, the Democrats will still have an issue—claim he acted too late to avoid unemployment hardships.

Criticism of Eisenhower is on the rise in GOP circles. Some of this comes from former backers—men who put money into Eisenhower's campaigns and now feel that the President's gamble is too risky. Some of it

WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU APR. 19, 1958 comes from former associates and advisers—men who once worked closely with the President and influenced his policies. A number of these men have tried to "reach" the President in recent days. They have seen him and have had long talks with him. But they find that the influence they once displayed no longer exists. One commented, "It's like butting a stone wall."

Who influences Eisenhower today? You can run through a pretty long list of people the President listens to. But here are a few "powers":

Treasury Secy. Anderson has a rising voice. In fact, those who deplored the influence of former Treasury Secy. Humphrey now say that Anderson is worse—meaning he's even stronger on the conservative side.

Gabriel Hauge, the President's Assistant for Economics. Dr. Hauge is credited with selling Eisenhower on present policies.

Other Cabinet members looked to by the President include Benson of Agriculture, Weeks of Commerce, and McElroy of Defense. Mitchell of Labor is still popular with the President, but lacks economic weight.

Eisenhower worries more about inflation than recession. This may help explain White House policies. The President regards the recession as a temporary thing—a thing that works hardship on many individuals and will remain a hardship until new jobs come up. The implications are that he sees inflation, the steady erosion of the dollar, as the long-term problem.

Keep a sharp eye on Congress from now on. So far, the session has been preoccupied with recession cures. Now it will get down to work.

Aid to school construction is dead—the integration issue.

Higher military pay has a good chance, despite the fact that it is loaded on the side of officers, rather than military technicians.

The Pentagon reorganization plan is still in trouble, although Eisenhower on Wednesday gave up his proposal that Congress vote money to the Secretary of Defense, rather than to the services. Some kind of reorganization is possible, though the Navy's partisans will fight the plan down to the wire.

The Small Business Administration will get more money. But there's doubt it will become a permanent agency, despite the recession.

Postal rates will go up. Prospect is that first class, now 3ϕ , will go to 4ϕ . Other classes will pay more, too. But the Post Office will continue to run a deficit.

Odds are against labor reform legislation. Chmn. McClellan of the Senate Investigating Committee has put in a broad bill. But it lacks support from the Administration and will be fought bitterly by the unions. Prospect is that it will be sidetracked this year.

Mark June 30 on your calendar. That's as long as Eisenhower will play his present gamble. If the slide hasn't bottomed out by then, with definite signs that an uptrend is ahead, then the White House will back a tax cut. Many authorities say that will be too late. But it is the prospect out of Washington today.

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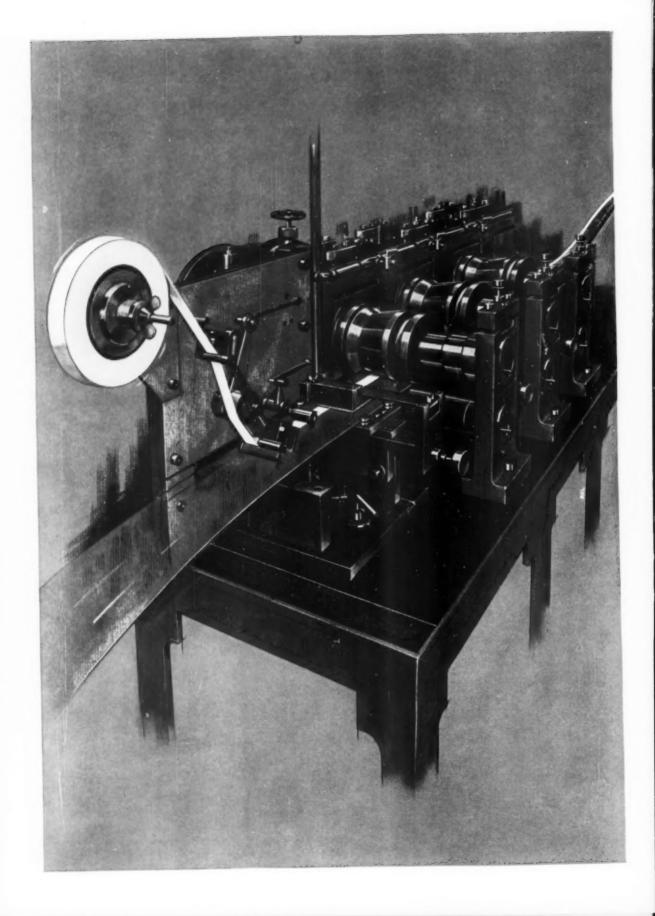


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"3M-MATIC" taping and dispensing method speeds production...

Protects 80-ft. of steel a minute!



TAPE STOPS scarring (left), leaves surface smooth (right).

How do you protect stainless steel ribbon from marring as it goes through cold-roll forming dies? Easy...strip it with tough "SCOTCH" Brand Polyester Film Tape. How do you apply the tape at your production speed of 80-feet a minute? Adapt a "SCOTCH" Brand Flat Surface Applicator (illustrated on opposite page) to do the job automatically.

This is one example of the versatility of the "3M-MATIC" tape dispensers and applicators. This same machine, in its basic design, can label a can, seal a package, combine package units, or tape a premium to a product by dispensing short, predetermined lengths of tape at a rate of 75 applications a minute. One machine... many jobs.

And the Flat-Surface Applicator is just one of the many tape-dispensing machines that make up the "SCOTCH" Brand family. Among the others are machines that apply tapes to tubes, boxes, bags—practically any shape you can think of. Together, these machines make up the world's most complete line of tape-dispensing equipment. The line includes the right machine for every need.

What does this mean to you? Well, the right dispensing machine, combined with the right pressure-sensitive tape, can mean better results in less time, at less over-all cost. Our staff of Tape Specialists will be glad to work with your staff in developing just the right "3M-matic" tape and dispenser combination for you. There is no charge or obligation for this service.

And, when the best "3M-matic" combination for your needs has been developed, the industry's largest and best-equipped distributor organization assures you of continuing prompt and dependable service. There's a "SCOTCH" Brand distributor near you. Call him for further information, or write to Minnesota Mining and Manufacturing Company, St. Paul 6, Minn., Dept. BF-48.

Only "Scotch" Brand Tapes give you these quality extras:



MOST COMPLETE LINE gives you the right tape for every need.



CUSTOMER ENGINEERING service is available without charge or obligation.



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When tape costs so little, why take less than

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Sure as it's a Chevy, you're going to be looked at when you drive this good-looker. Don't be surprised if you even hear a soft whistle of approval now and then. There's just something about Chevy's low, straining-at-thebit beauty that makes people sit up and take notice.

The way this Chevrolet *mores* is something to be admired, too. Its quick-sprinting power, for example, and the reassuring way it keeps its poise, even on sudden dips and curves.

Another big reason you'll be

prouder of a Chevy is that it's the only honest-to-goodness new car in the low-price field. There's a new X-built Safety-Girder frame . . . new Turbo-Thrust V8* . . . new longer, lower Body by Fisher . . . a choice of new standard Full Coil suspension or a real air ride, * Cars just don't come any newer—or nicer—than this one,

Stop by your Chevrolet dealer's real soon. What he's selling is high on pride but low on price.... Chevrolet Division of General Motors, Detroit 2, Michigan.

*Optional at extra cost.





Here's how TV program costs have soared

Even without a recession, TV advertising has been getting too expensive for many advertisers, though TV is reaching more homes than ever. Networks are helping to find ways of splitting these costs, for . . .

	1951	1957
Time	\$10,150	\$44,200
Talent	\$10,400	\$33,900
Total	\$20,550	\$78,100

Now the Sponsors Call the Tune

Along Madison Avenue, advertisers and agency people are huddling with network and film salesmen and program packagers to line up next fall's network TV schedule. The nets and program salesmen are selling into a tough situation.

Uncertainty over the economy causes advertisers to take hard second looks at the price tags for TV shows, which have been skyrocketing in recent years (chart). Even without recession fears, advertisers would be reluctant to commit these large outlays of money for long-term periods. Today this reluctance is turning into outright refusal.

Then, too, advertisers are asking some sharp questions about TV's high costs, the audience potential for their programs, and TV's future growth. In these issues, some advertiser spokesmen see implications for TV that go beyond the present season.

• Sponsors' Market—With these factors operating, the network selling season for fall shapes up like this:

 The season is continuing later than ever as advertisers take their time looking over entertainment properties, negotiating the best possible terms. Selling is highly competitive. But, by and large, advertisers are staying in the medium, and the best evening hours are in demand.

 Advertisers are insisting on a lot of flexibility in the way they buy. They are demanding—and getting shorter contract commitments, often with escape clauses permitting them to get out from under unsuccessful shows. Also, they are pressing for ways of buying shorter time periods.

 Advertisers are looking harder than ever for types of shows with proven audience appeal, and for less expensive formats. All three nets are reshuffling their program lineups. Generally, however, next fall's shows will be more of the same.

• Soaring Costs—The price of a TV show is the sum of two kinds of cost: (1) time, which means the charges for network and station facilities, and (2) talent, which includes fees for performers and various production costs.

Both time and talent costs have soared. Robert Foreman, executive vice-president in charge of the TV-Radio Dept. for Batten, Barton, Durstine & Osborn, mentions a quiz-type show he has handled for eight years. In that period, time charges rose from \$13,900 to \$65,200 per week; talent, though the same performers remained on the show, jumped from \$12,900 to \$58,900.

Faced with this kind of increase, many advertisers complain that network TV is too costly for small advertisers. And even if an advertiser decides to buy a network show, he finds that it takes such an increasingly big bite out of his over-all budget that he has little left over for carrying out his other advertising plans.

I. How Much Audience?

In voicing their concern, advertisers and agencies make it plain they aren't questioning TV's value. In fact, agencies pay high tribute to the medium's power as a salesman for all sorts of goods. What most questions boil down to is this: Is TV on the point of pricing itself out of the advertising market?

 Cost Per Viewer—To cope with worries like these, the TV networks have rolled out their heavy research artillery well loaded with figures. The nets agree that TV takes a substantial initial outlay. But they declare it is worth it.

The central point in their defense is
TV's efficiency—that is, the TV audience has grown faster than TV's costs.
The industry yardstick for measuring

program costs is the cost per thousand homes reached in each minute of commercials. According to National Broadcasting Co.'s vice-president for research and planning. Hugh M. Beville, the average cost per thousand for evening programs on all nets dropped from \$3.99 in December, 1955, to \$3.54 for the same month last year.

to \$3.54 for the same month last year. This is an 11.3% reduction.

On this basis, Don Durgin, NBC vice-president, declares: "Putting TV's rising costs in proper perspective—that is, in relation to its circulation growth and delivered cost-per-thousand trends—serves to demonstrate that it is economical, . . . effective and efficient."

• Can It Go On?—But linking cost rises to circulation increases raises a long-range problem: .Can audience

growth continue at a rate to justify future rising costs?

Philip L. McHugh, TV-radio vicepresident for the Campbell-Ewald agency that handles the Pat Boone and Dinah Shore shows for Chevrolet, points out that TV set saturation is already 83% of U.S. homes. "Circulation can't increase at the same rate forcyer, and costs can't keep going up and up," he declares.

Like most agency people, McHugh insists he isn't challenging TV's value. "It is still a good advertising buy." he says. "It does a tremendous selling job." His purpose in raising the issue, he states, is to ask, "Where do we go from here?"

• Slicing It Thin-McHugh isolates a second factor he believes will tend to



"... agency people are concerned about the intensified competition among the three nets ..."

STORY starts on p. 53

lower TV's cost efficiency in the future. This is the three-way network fight for audience.

Additional TV homes swell the circulation base on which time charges are figured. This is potential audience, yet the advertiser is essentially concerned with the actual viewing audience for his show. This is the real audience on which his cost-per-thousand figures are based.

Agency people, like McHugh, are concerned about the effect that intensified competition among the three nets, especially from American Broadcasting Co., is having in splitting up the audience for shows. Nielsen average-audience-homes for evening programs show the three nets dividing the audience more equally, with ABC and NBC closing in on Columbia Broadcasting System.

CBS average audience dropped slightly from 11-million homes in January, 1957, to 10.6-million last January. In the same period, NBC rose from 8.2-million to 9.4-million, and ABC from 6.3-million to 7.5-million.

 Programs Suffer—This three-way struggle is tending to split audiences in certain time periods. Says McHugh: "We have seen, and I believe we will centinue to see, most of the regularly scheduled programs suffering from this hard-fought three-way competition."

Competition may tend to lessen the average program's share of audience, the nets point out, but the shares will be of a larger total audience. According to Advertising Research Foundation figures, released this week, almost 42-million homes own TV sets—an increase of 10-million since 1955. Further, viewing is up. The average evening program, according to Nielsen total audience figures, reached 6.3-million homes in January, 1955, and 9.8-million in January of this year. Also, the hours per home spent with TV each day are up on an average from 5.76 in January in 1953 to 6.1 in January this year.

in 1953 to 6.1 in January this year.
Citing this growth, Norman Cash, president of the TV Bureau of Advertising, declares: "This provides plenty of room for all three nets to increase their delivered audiences."

II. Dividing the Cost

NBC's Beville replies, too, to the question of TV's slower rate of growth on cost increases. As for time, he points



Don't send two boys to do a man's job

Remember this when you choose an Electronic Data Processing System

Half measures are costly to keen-visioned managements who reckon time in years as well as quarters. If you are a cost-conscious executive in a growing company, read the next paragraph very carefully.

Honeywell's DATAmatic 1000 is a general-purpose data processing system designed specifically for business — today and tomorrow. It costs only twice as much to buy or lease as a medium-scale system. It is five to ten times more effective. It has a powerful reserve of speed and capacity to accommodate your company's growth for years to come.

Make no mistake. Electronic data processing is

here to stay. And it can be justified economically with the record-breaking speeds, capacity and flexibility of a DATAmatic 1000.

Whatever industry you represent, you will find DATAmatic 1000 of almost limitless potential in its practical business applications. That is why consideration of any business data processing program is incomplete without the facts on DATAmatic 1000.

Our applications engineers will be glad to discuss your requirements. Write for details to Walter W. Finke, President, DATAmatic Division, Dept. B4, Newton Highlands 61, Massachusetts.

Honeywell





with exclusive AUTOMATIC PLATE CHANGER

...runs all day without stopping to change masters

Truly Sit-Down Operation



Davidson's revolutionary DAV-A-MATIC. first Offset Duplicator researched in the laboratory of modern business and industry, simplifies General, Short-Run and Systems Duplicating!

Changes Plates Automatically! New Automatic Plate Changer (APC) attaches and ejects plates while machine is running — in a matter of seconds!

Speeds Up Systems Duplicating! New Universal Systems Feed combines automatic suction and hand feeding of Systems forms, records, communications!

Cleans Blanket Without Stopping! Just press the lever while machine is running! No messy cloths, no ink-stained fingers... operators love it!

Attaches Plates Instantly! New Master-Minder Plate Clamp grips and releases plates without locks or gadgets. Ideal for use with overlays, blockouts!

DAVIDSON CORPORATION

A Subsidiary of Mergenthaler Linetype Compa

GET NEW BROCHURE JUST OFF THE PRESS I

Hendings in Protype . Text in Linotype



Send new DAV-A-MATIC brochure

DAVIDSON CORPORATION

"... finding new ways to fit more advertisers into the choice evening hours . . ."

STORY starts on p. 53

out that the rate at which time charges have increased has been slowing down in response to the slower growth of audiences. Time rates will go up only slightly this fall. Beville points out, though, that 3-million sets were added to total TV homes last year, and the outlook is for another 2-million this

Talent costs, too, seem to be holding the line. Negotiations between advertisers and program salesmen are reported to end either in costs about equal to last season for many shows or in even lower prices in some cases.

· More Smaller Sponsors-Some advertisers believe that cost factors will eventually force the nets to find new ways to fit more advertisers, especially smaller companies, into the choice evening hours. Already, alternate sponsorships (where two companies sponsor the same show on alternate weeks) and participations (where three or four companies buy commercials in a program) have become standard in network TV. Participations especially are increasing, from 17 hours per month in 1955 to 37 per month last year.

However, these arrangements haven't sustained the growth in number of advertisers on network TV. From a high of 321 advertisers in 1956, companies on the three nets dropped back to 293 last vear.

Many companies would like to buy one-minute time units on the high-rating evening shows. So far, only one network-ABC-has sold one-minute announcements in prime time, on shows like Sugarfoot, which it couldn't sell fully last year. ABC may repeat the practice this year, but CBS and NBC

resist this selling policy.

• Programming Trends-BBDO's Bob Foreman conjectures that present trends will lead to two basic kinds of TV shows to satisfy two different kinds of advertising need:

· The run-of-the-mill Westerns, quiz shows, and adventures series, which aim at the highest possible audience, running 52 times a year. Advertisers who want mass circulation and frequency, without the heavy cost of full or alternate sponsorship, will buy minutes within these shows.

• The special 90-minute or twohour programs, which advertisers will buy either as one-shots or as 10 or 12 programs spread over the year. Specials lend themselves to heavy promotion and merchandising efforts, and they at-



BELL LANDS WITHIN HANDSHAKING DISTANCE OF <u>any</u> customer

When your sales problems are involved with *time* and *distance*, a Bell helicopter can take you to your customer's doorstep..eliminating frustrating ground time and waste time en route.

Take the case of a California aircraft manufacturer, with customers and potential customers all over the United States. The need was to demonstrate a new product for high speed aircraft, rockets and missiles. The solution was the company's Bell 47J Ranger.

Company president, pilot and sales manager.. with 90 pounds of demonstration gear..made a 9,000 mile criss-cross of 30 states by Bell. Demonstrations were made at 28 plants, with as many as three a day in widely scattered areas.. and every appointment was met on time. The result was a gratifying sales picture..plus thousands of dollars worth of newspaper, magazine, radio and television publicity.

A Bell helicopter can be the most active salesman on your payroll.. and the least expensive, figured on the savings it can effect. Let us give you some revealing facts and figures on how many cost-conscious companies are using the Bell the world over.. tell you about our popular Lease/Purchase Plan and the many excellent Charter Services available to you. Address Box 11D, Bell Helicopter Corporation, Fort Worth, Texas.



Bell Helicopters have the longest and most distinguished service record with the U. S. Armed Forces of any helicopter in the world.



Watch "WHIRLYBIRDS" on TV.. consult your local paper for time and station.

FORT WORTH, TEXAS

SUBSIDIARY
OF BELL AIRCRAFT
CORPORATION



pagemaster ... equally effective

"at the summit" and in your operation

Leaders at the December 1957 NATO summit conference in Paris maintained instant contact with their staffs by using Pagemaster selective radio paging system by Stromberg-Carlson.

The efficiency of this system will be just as welcome in your daily routine as it was in the councils of international diplomacy. In your plantas in the Palais de Chaillot-here is how the system works.

Your key people are equipped with transistorized pocket-size PAGE-MASTER receivers. When you need to contact any one of them who may be away from his usual location, your switchboard operator sets two dials on the compact encoder unit (installed next to the switchboard) and flips a switch.

Instantly that person's receiverand no other-responds with a pleasant buzzing tone, telling him he is being paged. He then goes to the nearest telephone and reports. Each page automatically repeats every 20 seconds until the call is answered.

You can have a PAGEMASTER SVStem installed to meet your particular requirements on purchase or lease plan. As your needs grow, receivers can be added without additional installation cost.

"There is nothing finer than a Stromberg-Carlson"

For complete information contact the PAGEMASTER distributor in your area. You'll find him in the Yellow Pages under Calling and Signaling Systems. Or write to us at 200 Carlson Road.

STROMBERG-CARLSON

Pagemaster Sales - Rochester 3, N. V.

Electronic and communication products for home, industry and defense

tract sponsors who are interested in high-caliber entertainment vehicles for their commercials.

Foreman believes this division would solve some of the cost problems of many companies and would improve program quality by attracting additional sponsors to the big specials. Many sponsors have already found the longer, irregular show, with its opportunities for promotion, suited to hard selling, as well as to institutional-type advertising. Foreman cites Rexall's success in using Pinocchio to promote a one-cent sale as an example. Next fall will bring a substantial number of specials to the air.

III. Playing It Safe

All three nets are fairly heavily reorganizing their program lineups. The most pervasive trend, strengthened by the recession, is toward program forms that have proven popular in the past. Trying out new formats, already on the decline in TV, is practically at a standstill. Emphasis is on taking no risks with the advertiser's investment. Spe-cific shows are still subject to change, but here is the likely lineup

· Western fans won't lack enter-A half-dozen new shows will join the 14 already on the three nets, including Northwest Passage on NBC, and several hour-long Westerns, such as Rawhide on CBS and Forty-Niners on ABC

· Mystery adventure continues strong. ABC continues its emphasis on "action" programs, like Bold Venture, aimed at younger adults. CBS is adding an hour-long Ellery Queen program, and NBC has a show called Ruditsky.

· While standup comedians are still in a decline, situation comedy, especially the family-type such as Father Knows Best, continues to be popular.

· Andience Games-The cost factor is helping to slow down the trend of TV to film entertainment. Next fall will bring an increase in the live "game" type of giveaway show. NBC has two such shows called Haggis Baggis and Big Game.

These shows offer the advertiser a number of advantages. They are cheaper to produce than film series. They can be easily altered to correct flaws, and packages sell them in 13-week blocks, giving sponsors a frequent chance to get out.

Finally, they rank high in sponsor identification, which many advertisers prize highly. Alternate and participation sponsorships, while reducing costs. dilute the identification of sponsor with the show. Even Westerns, in spite of all their audience appeal, rank low in this value. But live game shows give the sponsor a chance to work in his company name or his product throughout the show. END





Conrad or filling-slot types



Duplex or double rew types



With shields or seats



Self-aligning or angular types



In varying degrees of tolerances

With popular types of retainers

Extra small, extra large, extra light types



Fafnir can supply the right precision ball bearings, in the right types and sizes to fill any needs of modern industry . . . from tiny instrument bearings weighing but a fraction of an ounce, to large machine bearings weighing all the way up to sixty pounds each.

By the erection of two new plants and rearrangement of manufacturing facilities in the past two years, Fafnir has added 20% to production capacity now about 150,000 bearings per day. Worth bearing in mind. The Fafnir Bearing Company, New Britain, Conn.



filling needs as broad as industry itself

FAFNIR

MOST COMPLETE LINE IN AMERICA





If your company uses gasoline, this message is for you...

MORE CAR HAULERS USE GOOD GULF

Men who know what a gasoline should do—car haulers, for instance—can tell you it's good business to use Good Gulf. Over all kinds of roads, in every season, on tight schedules . . . they get more for their money with Good Gulf, the finest regular grade gasoline available.

Good Gulf is made for today's high compression truck

engines. It's a high-octane, clean burning gasoline. Prevents build-up of harmful engine deposits. Helps keep rings and pistons like new longer. You'll find that it helps engines deliver full-rated power, gives top mileage between overhauls, helps cut maintenance costs.

Your company can save with Good Gulf, too. How long



THAN ANY OTHER BRAND OF GASOLINE

has it been since you've checked gasoline prices and performance? Call your nearest Gulf office and see what we can do for you.

Write for illustrated booklet "More for Your Money with Good Gulf Gasoline."

	OIL C			TION Pittsburg	h 30.	Pa
Send		for	Your	Money		

Name _____

Street_____





The Bendix Automatic Pilot is the "extra hand" which steers this boat automatically.

SAFETY IS SOMETHING YOU CAN INSTALL IN A BOAT!

You buy a pleasure boat for pleasure but the amount of pleasure you realize from your investment is in direct proportion to how safe you make your boat.

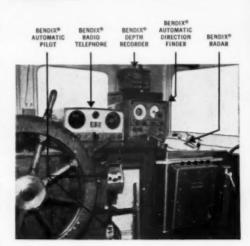
Today there are all kinds of Bendix devices available to make boating safer and thus more fun.

There's an Automatic Pilot that steers more accurately than you can in any weather; an Automatic Direction Finder that shows you your bearing on a picture tube; Radar to point out what's ahead in fog or at night; a Depth Recorder to keep you off shoals and which also spots fish for you; ship-to-shore Radio Telephones; Direction Finders and Transistor Power Inverters.

For details about this equipment write direct to the Marine Department at Bendix Pacific Division, North Hollywood, California.

In the outboard field the ingenious Bendix* Starter Drive has helped eliminate the old rope-starting method. And our new magnetogenerator improves ignition and keeps your batteries charged so you can use electric starting, lights, horns, bilge pumps, etc. This equipment is factory-installed.

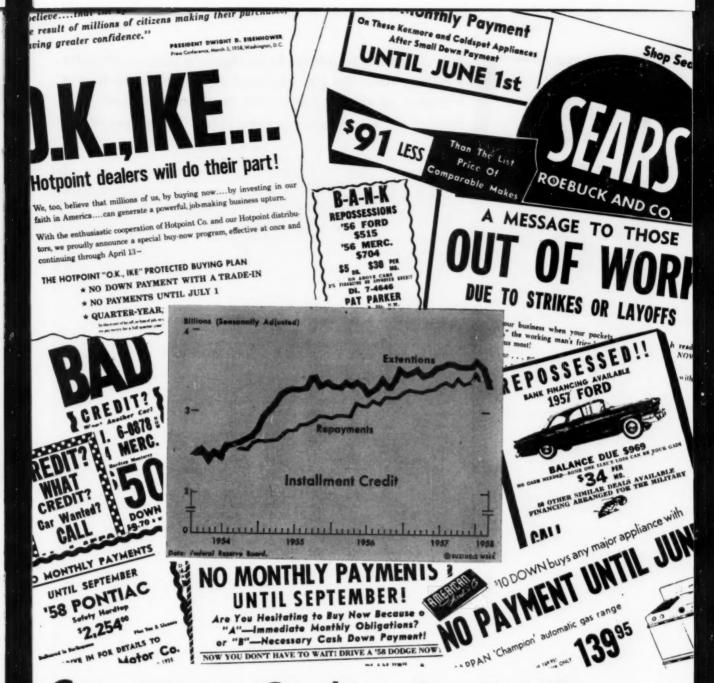
This summer make your boat safer and have more fun. ** LE PAY. OFF.



A thousand products



a million ideas



Consumers Cool to Credit Plans

Even highly promoted credit terms seem to be having little effect on the consumers' fence-sitting mood.

The figures in the chart above portray just how U.S. shoppers have been operating. Installment credit extended in February not only fell sharply from the level of recent months; it was the lowest since January and February of 1955.

Since there has been no compensating decline in the rate of payback, the result is a net repayment of \$435-million for the month and almost exactly

S800-million for the year to date. Often, February has more credit repaid than extended, but usually the margin is much smaller than January. This year, February had net repayments even larger than January's always sizable payback.

I. Credit Demand

Since the latest official figures, consumers have had the month of March and the added incentive of an early Easter—not to mention a growing emphasis among some retailers on credit terms—to spark their interest in financing purchases.

But BUSINESS WEEK reporters who this week talked to retailers, auto dealers, and bankers around the country found little evidence that consumers are demanding easier credit terms than are already available.

• Lean Pickings—Even merchants who are willing to take on poor credit risks are finding the pickings thin. A Boston



NATIONAL SHEET PROTECTORS OF DUPONT'S MYLAR*

Here's a transparent film so lightweight and thin it can accommodate up to 50% more material in a ring binder. It's strong, durable and scratch-resistant and Mylar stays crystal-clear despite repeated handling. Unaffected by moisture, temperature, age. Your valuable sales presentations, reports, displays, photograph album sheets deserve Mylar's extra protection.

Available in 2 thicknesses — .0015 gauge for greater capacity and economy, and .002 gauge for the ultimate in strength and transparency.

*DuPont's registered trade mark for its polyester film

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"... 'It's the peripheral buyer that is missing in the sales picture now; the guy who used to be willing to take a chance on his own future with long terms is gone'..."

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used car dealer advertises: "Want a Car? Can't get financed? Bankruptcy? Poor Credit? Call Andy." Says Andy: "No one's buying these days, not even those who don't pay anyway."

In St. Louis, a furniture dealer comments: "The trouble today is finding a potential customer, let alone a good credit risk." And in Pittsburgh, an official of a large bank says demand for durable goods loans has fallen 25% in the past four months. "I've never seen it drop off so much so fast as it has in that period," he says. Another banker in that city thinks the present trend blasts "the old maxim that a customer will buy anything if the credit is right."

In city after city, it becomes clear that customers aren't too interested in credit. Recently, for example, a large Houston department store sent out 3,000 personalized letters to credit customers saving, "You have paid your account so well, you can buy more and not increase your monthly payment." The results, says the store, "were discouraging."

ing."

• Hard Sell—A Milwaukee men's specialty shop chain also finds the consumer is lethargic about credit: "You almost have to work as hard to sell credit as you do to sell the merchandise." Banks there say applications for consumer durable financing are way off, with one loan department manager reporting declines of 25% in autos and 35% in other durables. In other cities, some merchants are being badgered by finance companies with money—but no applications—on their hands.

One Chicago auto dealer sums it up: "This is a flop year for cars, ads, and

special promotions.'

Polk Bros., big discount house in that city, agrees that consumers don't fall for easier credit terms, so it's promoting top-grade goods as though they were loss leaders.

• Restrictions—Most retailers agree that the "whys" of the reluctant consumer are easily traceable. A Los Angeles Chrysler-Plymouth dealer points out: "It's the peripheral buyer that is missing in the sales picture now; the guy who used to be willing to take a chance on his own future with long terms is gone. He has either had some restrictions on his income or is afraid he will."

To a Pittsburgh banker, the situation simply reflects unemployment, short-time employment, and "general apprehension." This means, he says: "The ones who aren't working can't commit

themselves and the ones who are are reluctant to."

"People today," says a St. Louis appliance dealer, "can spot a real bargain and know how to pass up phonies." Another commented disgustedly: "I sent out 10,000 pieces of direct mail on two real buys but didn't get enough traffic to pay for the postage."

II. Credit Push

Despite the obvious lack of consumer interest, advertisements like the illustrations on page 63 are popping up across the country.

In Milwaukee, merchants think they are in the midst of a credit blitz. A bank there permitted a customer to display its outboard motors in the lobby, then tacked on signs plugging the bank's low-cost finance department. Bond's clothing store is offering a "pay nothing till June, then take six months to repay." The manager says such a deal "hasn't been necessary before."

• National Pattern—The pattern continues in other cities. Sears, Roebuck has a nationwide campaign of nothing down, with payments starting in July. So far, there are no over-all reports of how effective this is, but BUSINESS WEEK reporters heard satisfactory reports in only one city checked.

In Akron and Chicago, some retailers are promoting back-to-work plans, with credit extended to those laid off. The only requirement: Customers must have had a job for several years, plus the usual credit rating. General Electric's Hotpoint division staged a two-week "O.K., Ike" drive in Chicago offering no payments with a trade-in, first payment July 1, and deferred payments after three months if the purchaser loses his job. It says disributor sales rose 180% during the local experiment, so now Hotpoint plans to take the idea to other areas.

• Pep Pills—Elsewhere, there are other new schemes. In Seattle, where credit promotion isn't generally spectacular, two national vacuum cleaner makers are paving customers for referrals. For each referral that ends up in a sale, the company makes the next installment payment for the original customer.

In Los Angeles, Utility Appliances Corp., maker of Gaffers & Sattler products, allows dealers to install its equipment with no invesiment on their part. Lending agencies have no recourse against the dealer, and consumers don't have to make downpayments. A na-



Howard Fuller speeds it in writing with telegrams



He rushes brushes to his salesmen — with wires "Fuller Brushmen ring over 12 million doorbells a year," says A. Howard Fuller, President, the Fuller Brush Company. "Keeping them supplied with the brushes, cosmetics, household cleaners and food supplements they sell is a man-sized job—you might say it's a telegram-sized job! We must be in constant communication with our more than 100 branch offices and 30 warehouses. We use telegrams because they're fast and accurate—and all the important facts are right there in writing."

For doing business fast, and in writing, there's nothing like the telegram.

now!

SHOWER BATHS AT LOWER COST

← One Bradley Column Can Provide Five Showers

> Here Bradley Column Showers are placed in partly walledin room. Where there is a central floor drain, only two piping connections (hot and cold water) are required.

BRADLEY **Multi-Person Shower Units**

are economical-each Column provides for 5 showers or for 3 (if placed against the wall). The Columns can be installed alone -or provided with partitions and curtains.

Installation time and expense are reduced because each Column can provide the same bathing facilities as five conventional shower stalls. Only three piping connections (hot and cold water and drain) are required in place of 13. If there is a central drain, only hot and cold water connections are required-a further saving.

Bradley Multi-Stall Showers allow each person to control water temperature and volume as desired. They are ultra-sanitary and require a minimum of maintenance

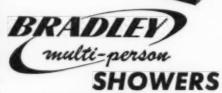
For New or Existing Buildings

Bradley Showers can be installed readily in new or existing buildings, economically and in shortest time. For complete details and specifications, please refer to pages 22 to 26 of our Catalog 5601, a copy of which will be mailed on request . . .

BRADLEY WASHFOUNTAIN CO.

2341 W. Michigan Street Milwaukee 1, Wis.

> Write for Catalog 5601



Distributed Through Plumbing Wholesalers

tional plan is being made available through Allied Building Credit, Inc., to G&F dealers and distributors.

· Old Themes-Actually, many of the credit promotions aren't offering new plans, but are stressing what is available -revolving credit, budget plans, and other existing delayed payment plans.

In fact, some merchants just aren't pushing credit. Department stores in Los Angeles, for example, think it is dangerous to go all-out on big ticket items, since that could impair sales of the much more important softgoods lines. "Anyway," they say, "it isn't good business for us to sell people something they really don't want or can't afford."

The attitude of merchants in Houston, where extravagant "something-fornothing" promotions aren't unknown, supports that of retailers in other parts of the country. Says a top retailer: "Wild advertising is just something that attracts the kind of person we find to be a bad credit risk.

Even though heavy promotions are skimpier than one might expect, some stores are going along with the tougher times. When somebody calls saying, "I lost my job," the store is likely to try to work something out, rather than repossess. The definition of cash, too, is being liberalized—one merchant reports that he considers 90-day payment as cash these days.

III. Tougher Terms

It may be more than just consumer reluctance to buy that accounts for the drop in long-term credit. For one thing, city after city reports that terms, rather than getting looser, actually are being tightened. A Pittsburgh banker says: "They're holding at the point to which they have already deteriorated.'

• Turn Downs-Then, too, many merchants are raising their risk standards, even though their advertising invites use of easy buying plans. Partly this stems from the hesitancy of leading institutions. In Washington, D. C., some establishments are having as high as 50% of their paper turned down by banks and finance companies.

Hard-hit Detroit's Michigan Merchants Assn., which handles 82% of the state's retail credit, says it is rejecting 16% of all credit requests compared with 10% last year. It attributes this to stringent policies on the part of banks. In Chicago, the Retail Furniture Assn. says that merchants are rejecting three to four times as many applicants as a year ago.

One men's clothing chain reports that, although it is giving more liberal terms, it is screening risks carefully. "In 1955," savs a spokesman, "vou assumed just about everyone had a job. Now you check to see how much seniority he has." END

Some New Users of BRADLEY SHOWERS

Caterpillar Tractor Co., Milwaukee, Wis. Dept. of Public Works, Detroit, Mich. Dominion Magnesium Ltd., Haley, Ont. Hanna Coal Co., Moundville, W. Va. Kaiser Aluminum & Chemical, Gramercy, La. Page Hersey Tubes, Ltd., Wheland, Ont. J. A. Roebling Son Corp., Roebling, N. J. Scovill Mfg. Co., New Milford, Conn. Sheffield Steel Nut & Bolt, Konsas Cty, Mo. Volunteer Portland Cement, Knoaville, Tenn. Wheeling Steel Carp., Schwood, W. Va. W. K. M. Foundry Div. of A.C.F. Industries, Richmond, Texas



5-stall Bradley shower unit with partitions and curtains-Dayton Daily News.



No matter how "smart" they make the machines, it still takes men to run them

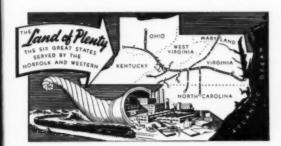
When the holes in a die must be accurate to 2/10,000 of an inch, there's no substitute for men who know how to use precision machines. Men like Denver Haney, above, a machinist for The Mechanical Development Co., Inc. in Salem, Va., makers of dies and tools for all types of manufacturing, including atomic reactor parts.

Denver Haney is representative of the pool of highly skilled workers in *The Land of Plenty*, men with sound technical backgrounds and valuable on-the-job experience. More and more, the job opportunities and desirable living conditions in this great and growing industrial region are attracting highly skilled men.

If you're planning a new plant and need workers with technical know-how, the place to begin looking for your plant site is in the progressive six-state area served by the Norfolk and Western. There are many superior manufacturing advantages here. Let the N&W's plant location specialists tell you about them — in confidence and without obligation.

Write, wire or call -

L. E. Ward, Jr., Manager Industrial and Agricultural Dept. Drawer B-793 (Phone Dlamond 4-1451, Ext. 474) Norfolk and Western Railway Roanoke, Virginia



Norpolkand Western

In Marketing

Justice Dept. Pokes Its Nose Into Car Dealers Pricing Practices

Car dealers' pricing practices are the subject of new Justice Dept. probe to weigh complaints that dealers in various areas are conspiring on pricing of new cars and accessories. Antitrusters are looking into charges that dealers are getting together on the so-called price pack—the system under which manufacturers' prices are inflated and then "discounted" by extra-large discounts and trade-ins. This is the practice that Birmingham Ford Dealer O. Z. Hall flouted recently when he posted the manufacturer's invoice, added on a 4% to 12% margin to get his price. Hall dropped this plan, he said, because other dealers raised such a clamor (BW—Mar.29'58,p26).

Antitrusters have been eying such complaints for some time. Announcement that a federal grand jury had begun looking into pricing in metropolitan Washington, D. C., a few weeks ago is the tipoff that they mean

business.

Among other things, the grand jury will be asked to examine the activities of three trade groups: Ford Dealers Advertising Fund, Inc.; Greater Washington Chevrolet Dealers Assn. Cooperative, Inc.; Chrysler Dealers Assn. FBI agents have been probing activities

on the West Coast, also.

In the Kefauver hearings in February, Frederick J. Bell, of the National Automobile Dealers Assn., asked car manufacturers to restore a uniform national advertised delivered price. He put his finger on the price pack this way: "All we are advocating is some way of restoring public confidence in the pricing structure of the industry and to remove the opportunity for a handful of unscrupulous men to advertise fantastic discounts which bear no relation to the truth because they are discounts from an artificially inflated or packed price."

Pedestrian Mall in Heart of Town Has Adherents—But Not in Milwaukee

Experimental pedestrian malls in the hearts of cities

are having their ups and downs.

This week, Waco, Tex., is repeating its venture of last fall, on a larger scale (BW-Dec.7'57,p52). The new blocked off area is six blocks long instead of three, and the experiment will last six days instead of three. Amarillo also gave the mall plan a short whirl this spring.

In Flint, Mich., auto dealers will close off the city's main drag next week, and turn it into an auto supermarket. Flint has a specific target—to sell cars. The other cities are fighting to offset the shopping centers.

Milwaukee city aldermen, however, voted down a plan to block off nine blocks of the city's main street for five days this summer. The city's Downtown Assn. had backed the plan, which, it was hoped, would prove a first step toward a permanent 14-block mall planned by the Public Land Commission for 1975.

The town fathers rejected the proposal unanimously. Estimated cost of between \$9,000 and \$10,000 was too high, they said, and "traffic turmoil" in surrounding streets would result.

Oil Notes: Jersey Affiliate Buys Chain; Calso Switches to Chevron Brand

Standard Oil (New Jersey) has taken a further step in its foray into Midwestern territory. Its subsidiary, Oklahoma Oil Co., bought Gaseteria, a leading private brand marketer, with 270 stations in Indiana, Illinois, and Iowa. The new acquisition gives Jersey Standard affiliates a total of 570 stations in five Midwest states (including Kentucky).

Gaseteria's founder, Russell Williams, was one of the granddaddies of the private brand marketers. His son, Gene Williams, who sold the company to Oklahoma Oil (estimated price, \$5.5-million), had been head

of the independent marketers association.

Meanwhile, another major oil company—Standard of California—is readying the windup of its switch to a single brand name. Late in May, California Oil Co., Calso's refining and marketing arm in the East, will start replacing the Calso name with Chevron. The company figures the change will take about two years, cost around \$2-million.

California Oil says the change will not affect its marketing setup; it still will operate entirely on its own.

Columbia-Universal TV Film Deal Is Cited in Antitrust Suit

The Justice Dept. again has moved against alleged monopolistic practices in the TV film distribution field. Last week it filed a civil antitrust suit against Universal Pictures Co., Columbia Pictures, Inc., and Columbia's TV film distributor subsidiary, Screen Gems, Inc.

Under attack in the suit is an agreement between Columbia-Screen Gems and Universal whereby Screen Gems would handle distribution of Universal's backlog of 600 feature pictures to TV stations. Screen Gems also distributes its parent company's film backlog, and since Columbia and Universal are competitors, the arrangement amounts to elimination of competition in the field, says Justice. It also involves price fixing and Columbia's unlawful acquisition of Universal's assets, the suit charges.

Screen Gems was one of six companies named a year ago when the Justice Dept. brought suit against block booking of features to TV. Justice also is currently investigating the sale of the Paramount Pictures Corp. feature backlog to Music Corp. of America for possible

antitrust action.

Both Columbia Pres. Abe Schneider and Universal Pres. Milton R. Rackmil issued statements denying any violation of law.

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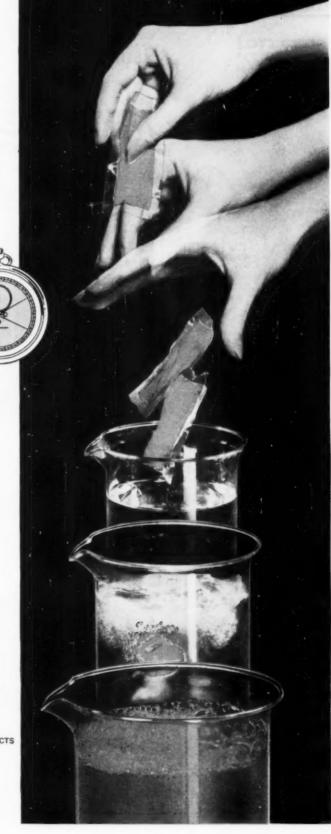


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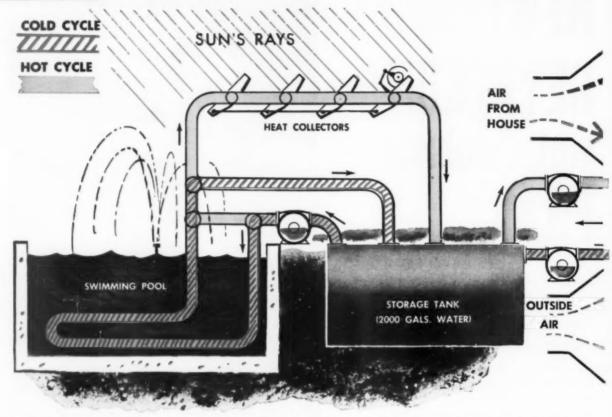
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PRODUCTION



New ideas in Phoenix solar house include water storage of heat, louvered heat collectors, and heat pump instead of auxiliary furnace. For heating, water circulates to collectors to be warmed by sun,

then returns to 2,000-gal. tank. When needed, it circulates through coil of forced-air system, warming house air. If water cools after several sunless days, heat pump goes on to warm house air; residual



COLLECTORS (front), arranged louver-style, rotate to catch sun's rays in winter, deflect heat in summer. Concrete masonry blocks (side) provide shade, help cool house.

Building a

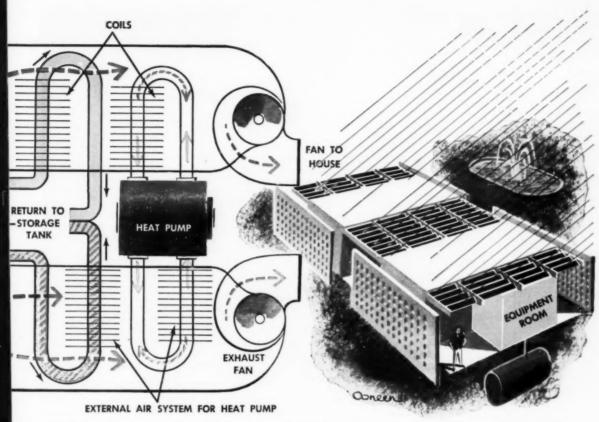
Last week, a new house was opened to the public in Phoenix, Ariz.

Outwardly (left), the house isn't too different from others in the \$50,000 ultra-modern fraternity. It's only when you examine its innards (diagram) that you find the new note. The heating system is designed to collect enough solar energy to heat the house and swimming pool, and to cool the house in summer by controlling sunshine.

Solar heating is just one application of solar energy, which is growing more important because it's free, and because it can't be used up the way our oil, gas, and even water resources can (BW–Ian,26'57,p119).

Jan. 26'57,p119).

• Break Through—Solar-heated houses have been around since about 1939, but they're still fighting two problems: (1) How to compete economically with conventional heating systems, at least in installation costs; and (2) how to provide heat when the sun doesn't shine.



warmth of tank water is used to preheat air around heat pump's external coil, making heat pump more efficient. For cooling, heat pump reverses itself and acts like conventional air conditioner: water from tank, cooled by aerated swimming pool, is used this time to precool air around heat pump's external coil. The more efficient the heat pump, the less electric power it uses.

Storage Bin for the Sun's Rays

The Phoenix house makes the first stab at solving the second problem by doing away with an auxiliary furnace and relying only on heat pumps—air-conditioning devices—which can extract heat from the outside air when solar heat isn't enough. These pumps rely on the system's heat storage for part of the heat they get.

The house is the joint project of the Phoenix Assn. of Home Builders and the Assn. for Applied Solar Energy (AFASE). It was designed by Peter R. Lee, an architecture student at the University of Minnesota, who won an AFASE competition.

 Water Storage—Lee's house shows a new trend and a new idea in solar heat.

The trend is to the use of water for heat transfer and storage. Water was used in the 1939 solar house, and is a feature of the solar house in Lexington, Mass., completed last month by Massachusetts Institute of Technology. Between 1939 and now, however, most

solar houses have used bins of rock or gravel for heat storage, or certain chemical salts that absorb heat when changing from a crystal to a liquid state. Water is the lightest of these materials. Its heat storage capacity ranks between rocks—which are the lowest—and salts, which hold the most British thermal units per cubic foot.

• New-Look Coliectors—The new idea is the design of the solar heat collectors. They are aluminum shells stretched on wooden frames, resembling inverted fluorescent light fixtures. The aluminum is covered with Dacron batting for insulation, and blackened copper tubes set in a blackened copper sheet are placed over the batting. The copper absorbs heat from the sun and transfers it to the water, which circulates through the tubes. Transparent sheets of Mylar, a du Pont plastic, are placed over the copper. These allow the sun's energy to get through, but prevent long heat waves from radiating back out to be

lost. This is the principle on which a greenhouse operates.

The collectors are arranged louverstyle over the house's patios and central court. They are rotated by a clock-operated motor to face south during daylight hours in the heating season (late October to mid-April in Phoenix), and can be ajusted so that they're always nearly perpendicular to the sun's rays. During the summer, the collectors are flipped over so the aluminum shells reflect heat up and provide shade below.

Two rows of collectors are reserved to heat the domestic water supply, which is stored in a 50-gal. tank apart from the house heating system. A number of solar water heaters are in use in conventionally heated houses—mostly in Florida—and in other countries with semi-tropical climates, where they obviate the need for furnaces just to heat water.

• Equipment Costs—John I. Yellott,

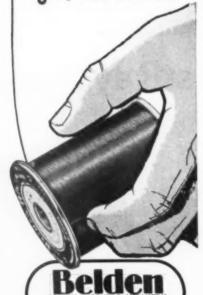
 Equipment Costs—John I. Yellott, executive vice-president of AFASE, estimates the cost of the Phoenix solar heat-



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ing equipment at \$4,000 more than conventional equipment would have cost for the house. Most of the materials were donated: the Mylar and Dacron by du Pont; the copper tubing and sheeting by Revere Copper & Brass; the aluminum by Reynolds Metals; the black paint for the collector by Farboil Paint Co.; and the heat pumps by Carrier Corp.

The John B. Pierce Foundation gave AFASE a grant for recording instruments to keep complete records of the

house's performance.

• Operation Costs—Yellott figures the cost of heating and cooling the house (close to 2,000 sq. ft.) at \$450 a year, compared with \$1,000 annually with conventional heating-cooling equipment. Most of the \$450 will go for power for the heat pump's summer aircooling work. One reason that the cost is even that high is that the house has a large window area. A less expensive model would have less glass, therefore lose or gain less heat. The Phoenix job is roughly in the \$50,000 class, but Yellott feels that solar heat equipment could be installed in houses as low as the \$10,000 range.

Richard Jensen, a graduate physics student, and his wife, a librarian at AFASE, will live in the house for six months or a year to keep track of its performance. After that, it will be sold

to the highest bidder.

• MIT's House-Solar heated homes will probably get their toehold in tropical areas, but the system is practicable in other climates. MIT's Lexington house, the fourth it has built since 1939, gets 75% to 80% of its heat from solar energy. Its collector is made of 640 sq. ft. of aluminum sheeting painted black and covered with two layers of glass, sloping upward at a 60-degree angle to form all the visible roof and wall of the building's south side (picture, below). Copper tubes are attached to the alumium sheet, and water circulates to them from a 1.500-gal. tank. The water heats the house in a system analogous to the Phoenix setup.

The MIT house uses a small oil furnace for heating when there is a succession of more than three sunless days. The oil burner also keeps hot water for domestic use at a minimum of 135F, since the solar heat system can keep the house warm with water as cool as

95F.

In summer, the collector provides hot water for domestic use, and the 1,500-gal. storage tank is refrigerated so that the forced-air system can cool the house.

• Home-Designed—A different system is built into the Denver home of chemical engineer George O. G. Lof. The collector is made of a number of overlapping glass plates in an insulated metal trough covered with a glass frame. Glass serves as heat loss insulator (the

greenhouse principle); as energy absorbing surface (the bottom of glass is blackened, instead of using copper or aluminum); and as heat exchanger (the air is circulated directly over the glass, instead of over hot water).

The heat storage unit consists of two hollow columns filled with washed gravel. This extracts the heat from the air, which then goes back to the collector for more solar heat. When the house gets too cold, the flow of air is shifted to pick up heat from the storage columns. Lof uses a gas heater as an auxiliary.

 How Good?—It's still too early to say how well solar heating works. A U.S. Forest Service building near Tucson has been using the sun's heat exclusively, but the solar equipment was added as an experimental afterthought, not designed into the building.

In Albuquerque, however, the world's first solar heated office building is completing its second heating season. Bridgers & Paxton, which designed the water-storage system, says it's successful: Solar heat provided 91.8% of the energy needed to heat the building, and has meant a 53% saving in fuel cost.

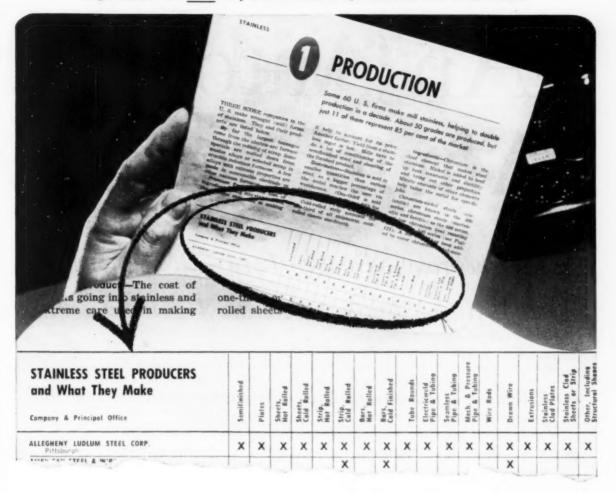
That's not enough to make it really economical, however. The building's total cost was \$58,500, including \$17,400 for the solar heat system. A conventional building would have cost \$55,500. Bridge & Paxton figures that if the difference had been only \$1,000, instead of \$3,000, the \$53% fuel saving would justify the additional costs.

MIT's heating system cost about six times as much as a conventional one. MIT engineers estimate that solar heating will be economical when capital costs come down to twice that of conventional heating plants. END



MIT EXPERIMENT in Lexington, Mass., has collectors of glass over aluminum.

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Expansion in Nuclear Fuels

Davison Chemical Co.'s new plant at Erwin, Tenn., offers private industry volume production of a variety of fuels for use in different types of atomic reactors.

At a time when more people are trying to get out of atomic energy than to get in, Davison Chemical Co., Baltimore, has plunged itself deeper—by \$2-million—into the business.

Davison, a division of W. R. Grace & Co., has just opened a new plant at Erwin, Tenn., for the production of fuels for nuclear reactors. This field, though highly competitive, is little known to industry generally because until recently, the government prepared all atomic fuels and did very little talking about the techniques involved.

The government still maintains its own facilities to produce fuels to take care of military and Atomic Energy Commission reactors. At least three other companies besides Davison are producing uranium fuel in metal or other forms on a commercial basis to supply nongovernment users.

• What's Involved—Fuel production actually is the ultimate step in uranium refining. Concentrates from the refineries cannot be put into reactors—they must be purified and compacted. Since only one in 140 parts of natural uranium is composed of the fissionable isotope uranium-235, this is an important step.

Controlled fissioning of uranium is the major purpose of a reactor. Fission produces energy in the form of radiation and heat. In power reactors, the heat is converted to electric energy by more or less conventional generating equipment.

To attain fission, sufficient particles of U-235 must be assembled to touch off the fission reaction on a chain basis. This is a matter both of having sufficient U-235 and arranging it so that the chain reaction will have the best chance of establishing and maintaining itself. So it is important to have the uranium in dense form so that the assembly, or critical mass, can be small enough to be housed, controlled and maintained efficiently.

That's why uranium metal, the densest form of the element, was used as fuel in the first reactors. It is also why scientists sought—and found—methods of increasing the proportion of U-235 in natural uranium. This enrichment is achieved in huge government plants where natural uranium, reduced to a gas, is processed and some of the heavier, more prevalent isotope U-235 is removed. This, of course, increases the proportion of U-238.

But even this gas must be converted to another form so that it can be used as reactor fuel. A number of chemical companies supply highly purified natural uranium in small quantities, chiefly for non-nuclear uses. But commercial preparation of natural uranium or enriched gas for reactor use is the specialty of companies like Davison, Mallinckrodt Chemical Works, St. Louis—the pioneer in the field—S. W. Shattuck Chemical Co., Denver, and Nuclear Materials & Equipment Corp., Apollo, Pa

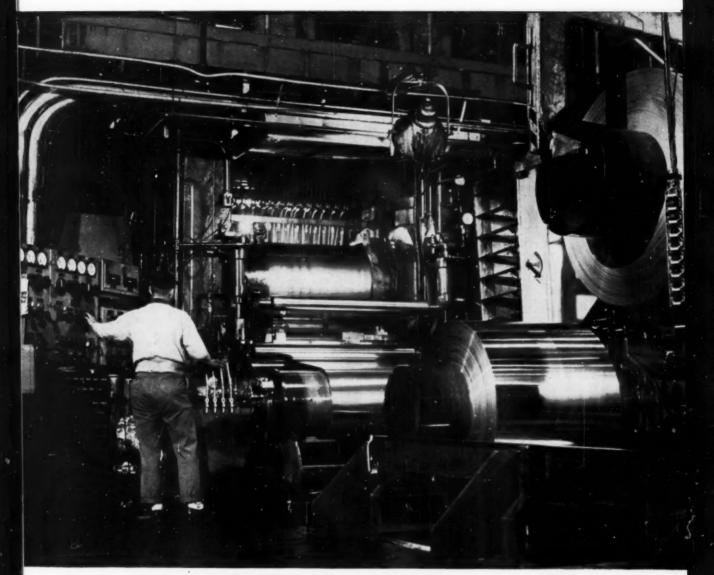
• Different Types—Natural and enriched uranium are supplied by Davison and others in a wide variety of forms. These include metallic rods and plates, ceramic pellets, liquids or slurries composed of a uranium compound mixed with water. The form of fuel depends on the type of reactor the customer is building. The variety of reactors and fuels is large because many promising approaches are being explored in the quest for economical atomic power.

New reactors use a variety of fuel compounds. One, for example, contains thorium. When exposed to the fission process in a reactor, thorium can be converted to fissionable U-233. This, plus the fact that thorium withstands high heat, has brought a demand for uranium-thorium compounds for fuel.

Right now, Davison is supplying uranium-thorium pellets for a customer. The ceramic pellets are not as dense as metal, of course, but they stand up better to intense heat and irradiation.

· Assembly-Normally, when Davison has prepared a fuel, it still is not ready to be used in a reactor. The next step is to assemble it in containers. Because uranium metal reacts violently -but chemically-with water, it is alloved or clad with another metal for use in water-cooled reactors. Ceramic compounds are inserted in metal tubes -frequently stainless steel. These containers are then assembled in groups or "fuel assemblies." This part of the job generally is done by fuel element suppliers-companies like Metals & Controls Corp., Westinghouse Electric Corp., General Electric Co., Babcock & Wilcox Co., Sylvania-Corning Nuclear Corp., Martin Co., Nuclear Metals, Inc., and Nuclear Materials & Equipment.

Davison and some other fuel processors have the capability to roll or extrude uranium metal and to alloy. But,



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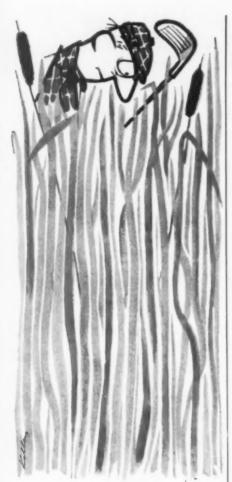
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"... as long as you are prepared to supply fuel in every form required you are not too much affected by technological changes ..." STORY starts on p. 76

with Davison, at least, this is secondary to the production of fuel.

 Diversified Line—Davison claims that its new fuel plant at Erwin, Tenn., offers commercial customers the most widely diversified line of products and services. It is counting on this diversity and the plant's capacity for large volume production to give it a competitive edge when business picks up.

Fuel processing is most likely to pick up this summer, Thomas Charles Runion, general manager of the new plant, believes. According to his estimates, a considerable number of existing reactors will require refueling within a few months. (Today's reactors require replacement of fuel within a maximum of two years.)

• The Reasoning—The decision to build the Erwin plant was by no means made in a vacuum. Grace owns Rare Earths, Inc., a producer of thorium oxide. Davison itself has a large plant for production of thorium hydroxide. But, to be of atomic value, thorium has to be refined to higher purity than any Grace affiliate has been able to achieve up until now.

Runion, a veteran of a dozen years' service in AEC uranium processing plants, joined Davison in 1956 and promptly got involved in the management discussions of a new thorium processing plant. He plumped for a diversified fuel plant that would produce uranium fuels as well as convertible thorium in usable forms for reactors. He argued so successfully that Davison decided on the Erwin plant and sent Runion to run it. "The reactor business is in its developmental stages and one of its present market hazards is changing technology," explains Runion.

"But fuel is necessary for every type of reactor. And as long as you are prepared to supply fuel in every form required, you are not too much affected by changes in technology."

• Many Products—Runion certainly has this diversity at Erwin. The plant is set up to convert natural uranium or U-235 enriched uranium to pure metal, oxides, alloys, and other forms. Similarly thorium is converted to metal, alloys, oxides, and nitrates for both reactors and non-atomic uses like refractories and high temperature magnesium-based alloys.

Davison also has set up a scrap recovery service. This is very important to uranium fabricators because they must account to the government for every bit of the metal they use, and recovery is a tedious and costly job.

The company has no intention of

entering the fuel element assembly field, which also has gone commercial only recently. The closest Davison has come to this has been to load uranium oxide pellets into fuel tubes for one customer. It also is willing to make bars, rods and sheets from ingot. But it leaves the manufacturer of fuel containers and their assembly for reactors to others.

 Policy Payoff—It is at this point Runion's policy of avoiding products affected by changing technology makes sense. The fuel element fabricators have long been beset both by rapid improvements in their products and by the widely varying needs of their customers.

The first reactors chiefly used uranium metal as fuel, and metal fuels still are used for research reactors. These generate little heat, compared to reactors for power plants, so corrosion and distortion are minor considerations.

Military reactors such as those used for ship propulsion generally employ metal fuels, too, because this is the most compact form of uranium. Some pretty fancy alloys and plating materials are often required, but size is more important than cost in these uses.

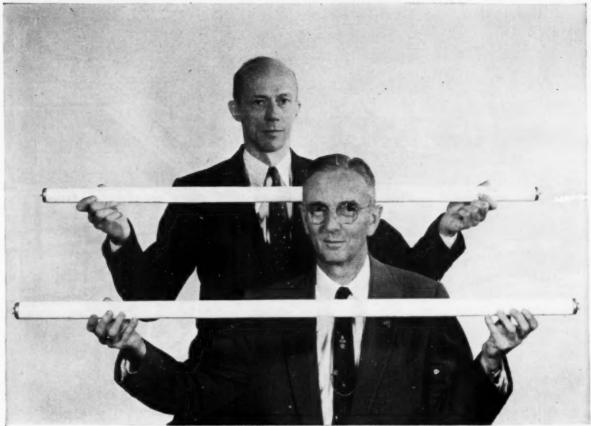
 Supply Sources—Up to now, Davison and other fuel producers have been strictly dependent on the AEC for supplies of both natural and enriched uranium. Davison, of coure, has its own sources of thorium concentrates.

The company has applied for permission to buy natural uranium direct from producers of uranium concentrates, who also own their own facilities. This will make it possible to get natural uranium fuels entirely through strictly private sources.

But it is unlikely that industry is anywhere near ready—if it ever will be to enrich natural uranium. This is now done in huge and costly AEC plants at Oak Ridge, Tenn., Paducah, Ky., and Portsmouth, Ohio.

• Ample Capacity—You get some idea of the Erwin plant's capacity by looking at some market estimates by Davison's staff. These figures show that domestic, non-government demand this year for metallic uranium will be something less than Erwin's 1-million-lb. annual capacity. The market estimates put demand for slightly enriched uranium oxide (containing 3% to 5% U-235) at 100,000 lb., compared to Erwin's capacity of 90,000 lb. Demand for higher enriched uranium oxide with more than 10% U-235 is estimated at 5,000 lb., against Erwin's capacity of about 4,500 lb. END

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The first fluorescent, introduced 20 years ago this month by General Electric, can't hold a candle to today's G-E 40-watt Lamps. A steady stream of improvements from G.E. in Rapid Start and Pre-Heat Lamps has provided up-to-the-minute lighting systems for G-E Lamp users. Efficiency is up 76%, rated life is 5 times longer, and the list price is down 57%! This means one G-E Fluorescent Lamp dollar today buys as much light as \$20 did 20 years ago!

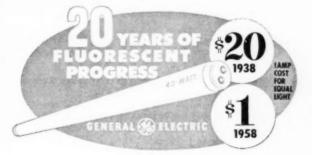
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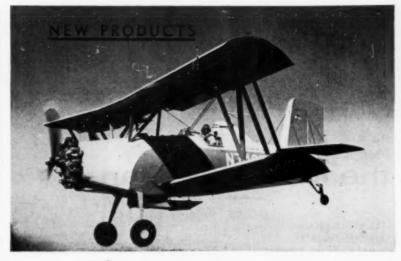
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This antique looking biplane, though it's turned out by a maker of batwinged supersonic fighters, is no sign that Grumman Aircraft's designers are looking backward. In fact, it's Grumman's very latest design for crop dusting and spraying, where the old-time biplane just can't be beaten for quick climbing and hairpin turning.

The AG-CAT, as it is called, has a 35-ft. wing span; it can do 110 mph., has a low stalling speed of 42 mph., and weighs 3,600 lb., fully loadedwhich includes 1,000 lb. of chemicals. It needs less than 700 ft. for a take-off.

For ease in maintenance, the fuselage skin can be stripped off and put back in a few minutes. Buyers have a choice of more than half a dozen engines in the 200-hp. to 300-hp. range.

Cost, depending on engine and accessories, about \$17,500.



Tank Truck With a Tilt

The fancied-up dump truck above is really a tank truck with a tilt, pictured as it takes on a cargo of granulated sugar. It's Fruehauf Trailer Co.'s latest dual purpose design for a truck that can carry both liquid and granulated bulk cargoes. The tilt assures that granular cargoes will pack evenly and without voids, and can be unloaded by gravity. The trailer has valves for liquids, plus a watertight trapdoor for granular loads.

The truck meets sanitary regulations for shipping sugar; Forbes Trucking Co., Inc., of Carlton, N. J., is using the first models.

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NEW PRODUCTS BRIEFS

Fluothane, a new non-explosive anesthetic gas, promises to help eliminate one of the most dangerous hazards in operating room procedure, according to its U.S. manufacturer, Ayerst Laboratories. The anesthetic, developed in 1951 by Imperial Chemical Industries, Ltd., in England, has been undergoing clinical tests for the last few years. Over 20,000 operations in England, U.S., and Canada have been performed with patients under Fluothene anesthesis. The gas is four times as effective as ether and twice as potent as chloroform. Manufacturer: Averst Laboratories, 22 E. 40th, New York 16, N. Y.

House paint that dries fast and is said to retain a glossy finish longer than standard house paints will be introduced on the West Coast this month. The paint uses a new base resin of the alkyd type, made by reacting isopthalic acid with a poly-alcohol. The resin's properties, it is claimed, make for better color and gloss retention as well as for easy application. Manufacturer: W. P. Fuller Co., San Francisco, Calif.

Platter glass photographic plates for precision work such as Stereoplotting aerial photographs are now available commercially for the first time. The plates, said to be the flattest ever, have surface variations in flatness below 0.0002 in., or about 1/35 the variation present in ordinary glass photographic plates. They are sold under the trade name Super Aerographic Positive Plates. Manufacturer: Eastman Kodak Co., Rochester, N. Y.

Rubber "mouse tails" that look something like rubber nails can be used to harness electric wire bundles to the metal chassis of electronic devices. The mouse tails are inserted through a hole in the chassis, looped around the wire and pulled through another hole. When released, the rubber contracts, which increases the diameter of the shank and grips the edge of the hole. Developer: Boeing Airplane Co., Seattle.

Fog-piercing searchlights become more effective when used with a polarizing scheme developed for the Air Force. Using a polarizing filter over the lens of the light and looking through a polarizing filter with opposite polarization, the reflecting glare from water droplets in fog is cut down considerably, thus revealing objects more distinctly. The technique holds promise for boat navigation in harbors and for landing light systems on aircraft. Developer: New York University, New York.

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One of these days, a future-minded manufacturer may launch a rocket freight service, and reap a sky-full of profits.

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In Labor

Federal Judge Enjoins Craft Boycott Of Products Made by Industrial Union

The Sheet Metal Workers (AFL-CIO) was enjoined last week from boycotting Burt Mfg. Co. ventilators made under a United Steelworkers contract. A U.S. District Court judge held the SMW's tactics illegal under the Taft-Hartley Act. He sharply criticized AFL-CIO's failure to act more decisively to stop them.

Burt employees in Akron have been represented by USW since the industrial union defeated the craftmen's SMW in a bargaining vote in 1945. For 13 years, the latter's 55,000 members across the country have refused

to install Burt-made equipment.

SMW denies that this is due to an organized boycott. It says that under its contracts members have the right to reject work on equipment not made by SMW craftsmen. They're acting on their own, the union contends.

Boycott or not, the jurisdictional pressure has cost Burt millions of dollars in lost business. Both company and USW appealed to AFL-CIO for help. Last February, after trying other devices, the federation took steps to curb boycotts in jurisdictional disputes among its affiliates. Although SMW announced it was complying, Burt and the steel union have protested that the boycott is still pinching them.

The court action last week was on an injunction petition filed by the National Labor Relations Board; Burt took its plight to NLRB early in 1957, charged the craft union with an unfair labor practice in violation

of T-H.

Rail Union Warns of Strike to Stop Cuts in "Superfluous" Diesel Firemen

American railroad executives, increasingly cost conscious, are expected to watch closely efforts of the Canadian Pacific Ry. to take firemen off freight and yard diesels starting May 11. If they can do the same thing in this country, it could mean savings of about \$300-

million a year.

The Canadian Pacific announced recently that it will begin to eliminate yard and diesel firemen next month, under a Royal Commission decision that they are superfluous (BW-Feb.8'58,p91). About 100 hired after Mar. 31, 1956, will be laid off. Another 500 will be downgraded. The others will be shifted gradually to firemen openings on runs not affected by the order.

The Brotherhood of Locomotive Firemen & Enginemen wants firemen retained on freight and yard service "in the interests of safety and efficiency of operation." Present BLF&E contracts run out May 31, and the union is demanding—and may strike for—a clause requiring the use of firemen. It says the Royal Commission

MORE NEWS ABOUT BUSINESS ABROAD ON:

- P. 89 Unions Feel the Recession's Pinch, Too
- P. 90 Missile Crisis: Machinists Flex Muscles
- P. 92 Unfair Labor Practice Charges Swamp NLRB

that recommended their elimination showed "ignorance of all practicalities involved in modern-day railroading."

The BLF&E, which fears the campaign to eliminate firemen might spread into this country, last week pledged its "entire facilities and resources" for a strike against the Canadian Pacific, for "as long as the [road] can stand it."

McClellan Committee Is Investigating Pennsylvania's Lingering Garment Strike

The McClellan Committee wants to find out whether corrupt influences are blocking garment strike settlements in Pennsylvania. The seven-state walkout, which ended generally in mid-March, is lingering on there.

The International Ladies' Garment Workers' Union has protested that "unknown forces" upset several tentative agreements between its negotiators and the Pennsylvania Garment Mfrs. Assn., which represents the last

hold-outs.

Many Pennsylvania employers have signed up on the strike-ending terms (BW-Mar.15'58,p38), which included "foolproof" contract enforcement machinery. Others stubbornly are resisting ILGWU demands. Perhaps significantly, "sweetheart" contracts—the target of the union's new enforcement clause—have been common in the area. The committee will look into employer and union activities—and into the possibility of collusion.

Unlike the peaceful seven-state strike, the continuing Pennsylvania stoppages have been marked by frequent

clashes.

Ohio Unions Seek New Ways to Bypass Any Adverse Ruling on Integrated SUB

Although an Ohio state court has upheld integrated supplementary unemployment benefits (BW-Mar.8'58, p36), unions are taking no chances. They are quietly working out special agreements "just in case." The Ohio Bureau of Unemployment Compensation has appealed the lower court decision.

The United Auto Workers last week negotiated an alternative plan with the White Motor Co., under which accrued SUB payments will be made in weekly installments—a maximum of \$25 a week—to eligible workers

after their return to jobs.

Union spokesmen say this plan will bypass the Ohio BUC rulings against joint SUB-unemployment compensation payments in the event the Court of Appeals upholds the bureau's past policies.



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*Call your Acme Idea Man. He has scores of time-saving, product-protecting ideas, many of which may help you. Write Dept. BGU-48, Acme Steel Products Division, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Ave., Toronto 13, Ontario.

Wayne Dabb works with Pacific States Cast Iron Pipe Co. to solve their product protection problems.





Unions Feel the Pinch, Too

Big industrial unions are hit by loss of dues from jobless members; craft group payments hold up better because more is at stake—and the Teamsters even claim a rise.

Unions whose income depends on dues payments by working members are finding that the recession—with its high unemployment—is creating financial problems. Along with many employers, the unions are dipping into reserves. While day-to-day operations haven't been seriously affected yet, the labor organizations are wary of new, potentially costly project, with the economic climate as it is.

Dues income for U.S. unions in 1957 is estimated at \$620 million. How much it has dropped off this year won't be known for some time, but it is be-

lieved to be substantial.

• Effects—A BUSINESS WEEK SURVEY of major unions last week found most of them acutely aware of the recession's effects on their own finances—the big exception to the recession's ravages was the International Brotherhood of Teamsters. Many industrial unions are operating in the red. For the big ones, with hefty reserves, this isn't serious. For smaller unions, living a more hand-to-mouth existence, it could soon be.

Generally, these are some of the things underscored by the survey:

• Industrial unions are harder hit than craft unions. In most of them, payment of dues cuts off, or is reduced, when a member is out of work. The craft groups, on the other hand, collect dues regardless; the craftsmen keep up payments because, hiring practices being what they are, referral to a job depends on their good standing in the union, and because a part of their regular dues goes to provide death benefits and often other protection of the kind a "beneficial association" offers.

 Few unions are laying off staff people because of tighter times—but, as in management circles, expense accounts are being watched more closely and new expenditures have to be justi-

hed.

- Staff representatives are being reassigned, in many instances, from organizing work to community service programs—to help jobless workers with their difficulties. "Now is the time we need more people to help the members with their problems," says a Steelworker official.
- Although current programs are continuing for most unions, organizing plans aren't being pressed. According to a United Glass & Ceramic Workers official, organizing isn't economic "when workers are being laid off"—and there

seems to be a growing "don't rock the boat" attitude likely to be reflected in a go-very-slow policy on strikes.

Many unions saw a need for deficit financing ahead. But all emphasized that "necessary" activities will continue to go on—even if it means borrowing money from other unions with more surplus to draw on during tight times. That has happened before and, if the recession stretches out, it again may be a bulwark against financial troubles for smaller unions in the next year or so.

 Union Deficits—The way the recession has affected unionism is reflected in the current finances of two of the largest industrial unions—the United Auto Workers and the United Steel-

workers.

The UAW, with a \$1,559,215 general fund income in January, had a \$226,244 deficit for the month. Per capita payments to the international union increased slightly in February, despite growing layoffs in the industry. Partly this was due to the union's dues system: A member pays dues even if he works only 40 hours in a month. Thus, he can draw unemployment compensation and SUB, show up in all unemployment counts, and be one of the union's distress cases-but, because he has worked the minimum 40 hours that month, he is still liable for dues. Even so, the dues loss to the international union is estimated as running about \$450,000 or more a month.

For the Steelworkers, the loss in dues income has just about doubled between Dec. 31, 1957, and Apr. 1, 1958. At the first of the year, an estimated 125,000 steelworkers had been laid off, representing a \$312,000 a month loss in per capita to the steel union. On Apr. 1, an estimated 150,000 steelworkers were unemployed, cutting the union's monthly income by a total of about \$625,000 or \$100,000 more than the 1955 monthly payroll deduction for dues at U.S.

Steel.

This does not mean that the two giant unions are in financial difficulties. The UAW has some \$35-million in total assets. The Steelworkers assets are about \$23-million. As a result of raising dues from \$3 to \$5 a month the steel union has a sizable cash reserve. But both unions may face a shortage of ready cash for day-to-day operations.

The UAW, currently bargaining the auto giants, has a strike fund of \$24-

million that cannot be touched for any other purpose. The recession has affected this fund, which has not increased as fast as expected (BW-Apr. 5'58,p125). If there is a strike, despite growing sentiment against it within union ranks, UAW may be forced to borrow-or seek strike contributions—from other unions.

• Craft Union Stabilizer—Craft unions aren't feeling the recession nearly as much as industrial unions. In the International Ladies' Garment Workers' Union, members tend to keep uppayments in order to maintain good standing in a variety of health and welfare benefits. In the Amalgamated Meat Cutters & Butcher Workmen and many others, they do it to keep insurance—with death benefits—in effect

Members of building trades and other craft unions in casual or seasonal industry keep up dues payments as a matter of course—to be available for union jobs as they open up.

• Recession Windfall—Despite its 10% unemployment estimate, the million-member International Assn. of Machinists is holding its own. Its losses in some areas have been offset by gains in major aircraft-missile factories. When government cutbacks were taking effect last fall, many nonunion workers in IAM-organized plants got security conscious and decided to join the union after all.

The IAM, with a full time staff of 900 in the U.S. and Canada, plans no cutback in union services. But a union spokesman says, "Of course, the recession is limiting the number of new projects we can undertake." According to the international, local union activity and staffs in such heavily hit places as Cleveland have been curtailed.

• Bullish Teamsters—The recession seems to be sparing the Teamsters, the largest U.S. union. For the first quarter of 1958, the truckers' union claims 1,404,739 members—35,146 more than in the first quarter of 1957. Per capita payments—40¢ each member—in March were also up over a year ago. The union has about a \$41-million treasury.

Currently the Teamsters union is laying off staff, but the people being let out are Dave Beck holdovers. They will be replaced, according to the union. Teamster Pres. James R. Hoffa is talking expansion, and just announced that the international will continue its policy of matching local union funds for organizing campaigns. The executive board has set aside \$170,000 for this purpose. END

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Missile Crisis

Machinists flex muscles as West Coast pacts run out. Republic contract terms may influence bargaining.

The government's first labor crisis of the year is gathering in the aircraftmissile field, where, unions warn, most major contracts have expired with "no substantial progress" toward settle-

Al J. Haves, president of the International Assn. of Machinists, advised the Federal Mediation & Conciliation Service last week that "negotiations in the vital . . . industry are fast approaching a crisis stage almost everywhere." Strikes have been authorized against major companies.

IAM and the United Auto Workers are the dominant unions in the aircraftmissile field. They have coordinated their demands and strategy and will hold a joint meeting in Hollywood Bowl Apr. 27 to plan "mass action" to stimulate "sluggish" negotiations.

· Warmup-Last weekend, the Machinists flexed muscles in rejecting management offers covering Lockheed Aircraft Corp. plants in California. Lockheed offered a 13¢ raise plus a 2¢ c-of-1 increase payable the end of this month. IAM turned down this proposal as "no offer of a general wage increase," contended it would only bring Lockheed wages "up to date."

A few days before, Republic Aviation Corp. and IAM signed a new two-year agreement in New York, giving 10¢ to 14¢ raises this year, 10¢ more in April, 1959. The Republic pact also provides greater seniority protection, layoff benefits, and a c-of-l escalator clause. IAM had demanded a package increase of from 26¢ to 28¢ an hour.

• Impact-The Republic-IAM agreement did not have any immediate impact on the West Coast bargaining. where IAM and UAW were standing pat on a demand for a 28¢ wage hike, tighter union security and liberalized severance clauses, and assorted fringe concessions. The package is strongly resisted as "too costly." But IAM says the Republic terms "can't be ignored" by other companies.

Generally, Washington expects that IAM and UAW will avoid any nationwide shutdown in the industry-aware of the public reaction against any hampering of the nation's aircraft and missile program. However, with employment in the industry beginning to stabilize and with reports of new contracts and orders coming from Washington, the unions are getting more

strike-minded. END



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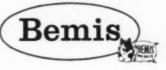


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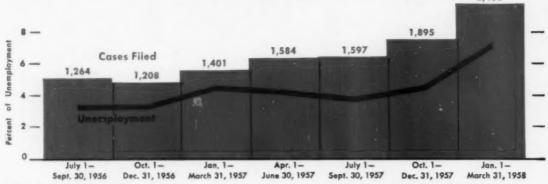
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Unfair Labor Practice Charges: Up With Unemployment



Data: National Labor Relations Board.

Complaints Swamp NLRB

With work harder to find, layoffs, downgrading, and job shifts create problems likely to add to board's load.

When unemployment rises, so does the National Labor Relations Board's load of unfair labor practice cases. That has been NLRB's experience through the years (see charts) and what is happening now underscores it. A "phenomenal" flood of new filings has carried the board's case load 75% above the previous peak of 1955—and it is showing no signs of letting up.

The current trend began in the late summer of 1957 and quickly gained momentum in the last quarter of the year. It gathered even more speed in the first three months of 1958. According to NLRB Chmn. Boyd Leedom, the "intake is continuing far and above anything that has happened before."

 Rapid Rise—The last weekly figures showed 1,000 charges of unfair labor practices filed, compared with a normal figure of 500. And when official reports for March are checked, board spokesmen say they may "go through the ceiling" of estimates by more than a thousand cases.

There is no regional or industrial pattern discernible; the swelling in the number of new cases is an overall expansion. But, nationally, it has shown a close—and characteristic—parallel to rising unemployment levels.

To career staff representatives of NLRB, the way the economic situation is consistently mirrored by case filings is a matter of particular interest. It indicates how economic inbalance af-

fects labor relations practices on a day-to-day basis, they say.

 The Reasons—Jerome D. Fenton, general counsel, touched on this a week ago in testimony before a Congressional subcommittee considering an NLRB funds appeal.

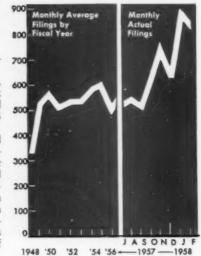
"This sudden rise might be attributed in part to some of the changing economic conditions in various parts of the country, to the current Congressional inquiries into labor-management practices, and to the expulsion of certain unions from the AFL-CIO," Fenton said. All have contributed to labor tensions. Meanwhile, he added, there is growing awareness among workers of their rights under labor law.

"More important, however, to this situation is the understanding that the individual employee has been acquiring as to his rights under the labor-management relations act [Taft-Hartly Act] and his desire to exert these rights," Fenton said.

Individual employees are filing charges—against both employers and unions—with greater frequency than unions and employers combined. During the fourth quarter of 1957, the last quarterly figures available, individuals filed 59% of all charges—an increase of 136% over the number in the last three months of 1957 and 88% more than any previous three months of 1957—before unemployment worries began. Individuals brought 1,230 charges in the fourth quarter, 758 against the employers and 472 against unions.

Growing Backlog—In all, NLRB received 1,895 cases during the three months. Preliminary figures placed the total for the first quarter of 1958 at 2,430—but the actual load increases may have been much heavier.

Leedom and Fenton told Congress that the increased intake has created a

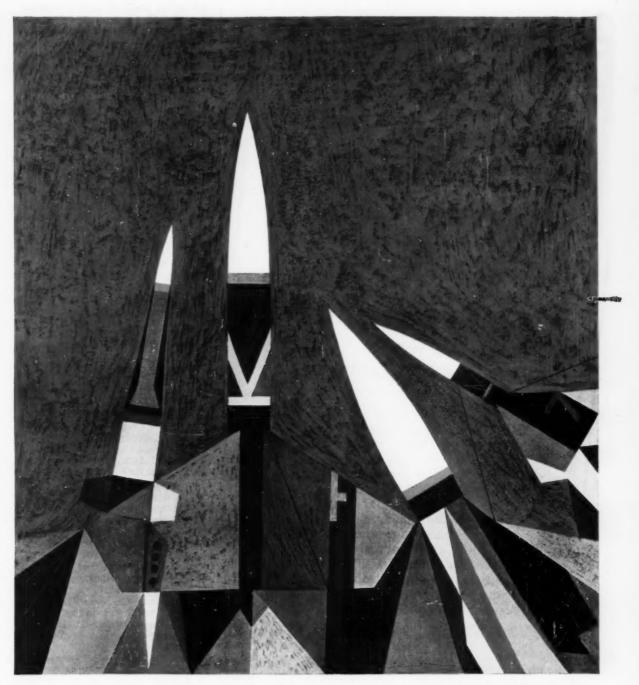


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situation in which NLRB is falling behind at a rate of 300 cases a month; even if no new cases came in, it would take the board two years to clear its present backlog.

But nobody doubts that new cases will come in. Economic conditions are right for troubles to continue piling up. · Workers' Unrest-Layoffs because of production cutbacks can be complicated. Under the Taft-Hartley Act, emplovers can discharge workers for any reason except on a discriminatory basis to discourage or encourage union membership. Unions complain that some employers are taking advantage of layoffs dictated by economic necessity to get rid of some of their most active union people. And individuals protest to NLRB that unions are pressing for layoffs of nonunion workers first in many contract plants.

Downgrading is creating even more unrest and is the reason for a substantial increase in unfair labor practice charges. Again it's a fighting matter of job protection, with readjustments causing grievances and unrest. A Chicago



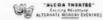
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COMMERCIAL CREDIT COMPANY subsidiaries, during each of the last several years, advanced over one billion dollars to manufacturers and wholesalers to supplement cash working capital. The total volume of finance subsidiaries amounted to over three billion dollars. steel union president recently reported that his mill grievance committeemen are "beset daily with complaints of downgrading—it's now the union's major grievance problem." With jobs being consolidated and reassignments made, the local's members are "all on edge," he said. So, cases are being processed to NLRB as fast as possible.

As long as jobs were plentiful, workers shrugged off layoffs or downgrading as often as not. Unless they had a big stake in seniority or in welfare program credits, they went job shopping. Now, with jobs harder to get, they are fighting to hold on—individually or through their unions.

 Lag Expected—While the number of unfair labor practice cases filed runs closely parallel to unemployment's rise, it is not so sensitive to a downturn in joblessness. There is a lag, ordinarily, in response as unemployment sloughs off; case filings continue high.

There's a reason, in NLRB's opinion. The workers' sense if insecurity isn't quickly alleviated as unemployment ebbs.

High Court Won't Upset Lower Court Rulings

The U.S. Supreme Court this week refused to review lower court decisions in two labor cases, in effect upholding rulings on a secondary boycott and compulsory arbitration.

In the boycott case, the high court in effect upheld an order by the National Labor Relations Board against secondary boycott picketing by a Teamsters local in New Orleans. NLRB said the union, engaged in an organizational dispute with a trucker, committed secondary boycott violations by picketing the New Orleans port of embarkation, where the trucker was attempting to make deliveries of oil.

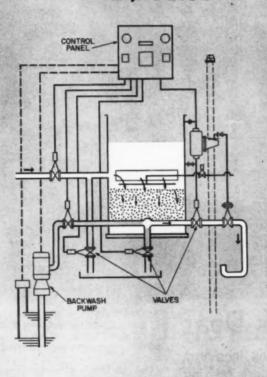
NLRB ruled the purpose of picketing the common site (where employees in a labor dispute and others employed by neutral firms work in one place) was to induce longshoremen of a neutral employer at the port to refuse to unload the trucks.

• Salary Dispute—In the arbitration case, Sperry Gyroscope Co. lost an effort to avoid court-enforcement of an agreement to arbitrate a dispute over salary increases with an independent union of engineers.

A lower court ordered arbitration of salary increases allegedly not granted for merit alone, as provided by the union contract. Sperry wanted the Supreme Court to upset a ruling that arbitration could be ordered in the case even though the union's suit was filed incorrectly, on grounds Sperry waived procedural objections by filing an answer on the merits of the suit. END

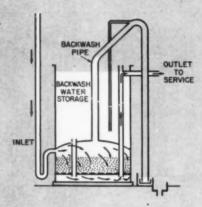
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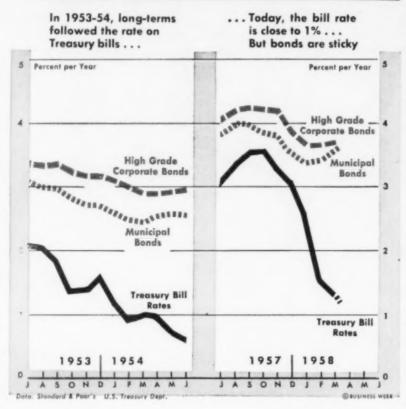
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Long-Term Money Stays Dear

The Fed is under fire for failing to bring long-term interest rates down fast enough—and the critics are reviving talk of direct Fed open-market operations to do the job.

It's rare in a time of business decline for long-term bond vields to behave the way they did in the first three months of 1958 (chart)-dip and then start back up again. Once economic activity goes into a slide, it's much more likely for them to fall sharply, as they did at the outset of

the 1953-54 recession.

This stickiness in long-term interest rates is regarded by many economists and money market experts as evidence of failure by the nation's monetary managers to combat the recession effectively. True, long-term yields will probably move abruptly down over the next few months-in fact, they began falling last week. But the critics say a decline now will be too late, because the higher rates have already discouraged investment that might have moderated the slump and helped bring about an earlier upturn.

Criticism of this sort is bound to be vented in the next few weeks, as Congress begins hearings on monetary policy. And the main target is likely to be the Federal Reserve's failure to bring long-term lending rates down. · Theory and Practice-The carping centers on what the money managers have done-and left undone-with the weapons at their command. In orthodox monetary theory, in a recession the Fed should use its powers over credit supply to reduce long-term interest rates-the key to capital spending. It could do this directly, by buying government bonds, or indirectly, by buying short-term Treasury bills or lowering reserve requirements, either of which should influence the longterm market.

Starting last November, the Fed did switch from restrictiveness to ease. Its first move was a dramatic cut in the discount rate-from 34% to 3%. This brought all short-term rates down -and started long-term rates down-ward. But it was not followed by any substantial increase in the credit supply. When the Fed finally did deliver more credit, the ease in the short-term market failed to work its way smoothly through to the long-term sector.

What went wrong? For one thing, the market was hit by a big volume of debt offerings in the first quarter of 1958. In fact, state and local governments borrowed a record \$2.2-billion in that period; corporate issues were also fairly heavy. And since last fall, the Treasury, faced with a load of maturing issues and strapped for new cash, tapped the market for about \$9-billion in medium-term and longterm funds. This, of course, meant less money was available for private borrowers and helped to keep rates high. In addition, government-guaranteed mortgages, with their fixed interest tags, tended to divert dollars from the bond market, particularly after the rate was hiked.

· Accusing the Fed-These factors all impeded the natural working of an easier credit policy, but, even so, many economists put most of the blame on the Fed. They insist that monetary policy can offset other factors and bring down long-term rates in a hurry. As evidence, they cite the Fed's performance in the 1953-54 recession. Then, it moved quickly and drasti-cally to ease credit. Within weeks after the decline became apparent, money was pumped into the economy through a massive cut in reserve requirements. And long-term rates soon reflected the change.

This is the way monetary policy should work. Easing is most effective in the early stages of a decline, when potential borrowers are still in the market. In fact, monetary policy is the only weapon that can be brought into play early in a recession-there's always a time lag before other measures

take effect.

· Slow to Move-This time, there has been a long lag in easing credit itselfthe Fed did not act until late fall, long after business activity was clearly moving down. Even more important, the moves it did make were too small to stimulate credit demand. By now, many borrowers who postponed offerings to wait for better market conditions are still deferring them-on the grounds that they are no longer necessary.

Another deterrent to borrowing has been the conditions imposed by lenders. When the Fed lowered the discount rate without materially increasing the credit supply, underwriters imposed a good many strictures that led to deferrals. (For example, they often in-



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". . . borrowers who postponed offerings to wait for better market conditions are still deferring . . "

STORY starts on p. 96

sisted on the "no call" provision, which meant that the borrower couldn't redeem the issue until maturity.)

Moreover, much of the borrowing that has been done has not meant increased spending. Many corporations turned to the long-term market to repay bank debt. This was at least partly because the Fed's drastic cutting of the discount rate did not bring a comparable drop in bank lending rates.

• Inflation Bogey—The Fed claims, in its own defense, that fear of inflation prevented it from taking more drastic action. Fed Chmn. William McC. Martin, Jr., has publicly said credit was eased too far in 1953-54, and this, he claims, contributed to last year's inflation. However, the critics argue that the trouble came only after recovery began in 1955, when the Fed was not restrictive enough. They urge dealing with inflation problems when they arise. In the meantime, they insist with Harvard's Prof. Seymour Harris that "we need a drastic reversal of monetary policy."

The Committee for Economic Development takes much the same position. It has suggested the Fed "move even more vigorously to provide the banks with abundant reserves" to in-

crease the money supply.

The Fed has not entirely ignored the charge that high interest rates have been harmful. Chmn. Martin testified at the Joint Congressional Economic Committee hearings in February that the Fed's discount rate cut in November and its open-market operations resulted in a "very sharp drop in market rates of interest, the sharpest drop for any comparable period of which I have knowledge." But the critics counter that the fall in rates was largely due to speculation that the money managers would ease credit even more drastically. When they did move, it was more mildly than expected, and free reserves -which indicate the over-all availability of bank credit-remained low through January and February, while business loans were sagging faster than at any time since the war.

• Into the Market?—Some of the critics think the only sure way for the
Fed to get long-term rates down is
by direct open-market operations in
that sector of the market. In this view,
the Fed's general and indirect controls

work too slowly.

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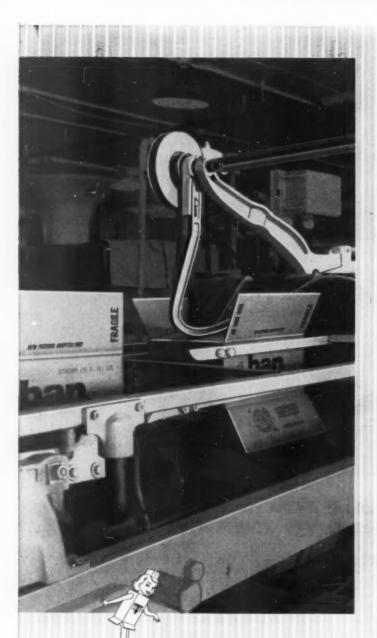
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"... the 'bills only' policy may soon come up for further debate..."

STORY starts on p. 96

ment securities to influence interest rates directly—was once a big issue in the Fed itself. Most officials, headed by Martin, take the position that the Fed should limit its operations to 91-day Treasury bills—the shortest-term paper. This "bills only" policy, which has been followed almost continually since the Fed-Treasury accord of 1951, has two purposes—to limit the Fed's interference with the "natural forces" in the money market, and to prevent the "pegging" of government bond prices that made the Fed an "engine of inflation" after the war.

But by confining itself to bills, the Fed cannot directly influence other rates. Instead, it must depend on ease in the short-term sector to work its way through to the long end. And critics say this process can work too

slowly in crucial periods.

· Flexibility First-Columbia's Prof. James W. Angell points out that "vou can't do a big enough job in the short end of the market to moderate investment swings." For the Fed to go along with this view would not mean abandoning the present policy and returning to pegging-but it would mean much more flexible operations. Allan Sproul, president of the New York Federal Reserve Bank until 1956, fought for a flexible "bills usually" policy that would leave the money managers free to "nudge the market in the direction sought by credit policy." But he lost the fight to Martin, and the "bills only" policy has not been officially challenged since.

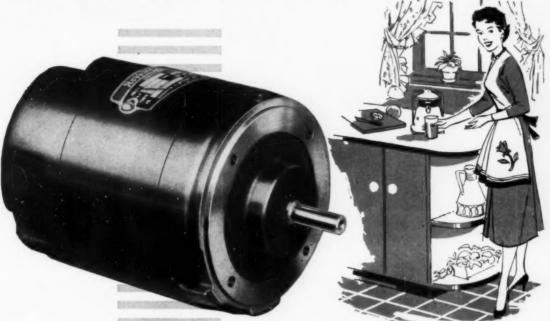
It may well be that the Fed's failure to get long-term rates down soon enough will reopen the battle.

• Lineup for Combat—If the fight does resume, Martin will have on his side most of the government bond dealers. They think that Fed operations in different sectors would create an artificial market and that the result would be the pegging of bond prices. Says one dealer: "We wouldn't be able to appraise the market properly if the Fed started shifting around."

Ranged on the other side is a growing number of economists and monetary men who feel the Fed's most important task is to help stabilize the economy. They think it has failed in that assignment, partly because it can't exert influence in critical areas fast enough. If the Fed's policy is to be truly flexible, able to shift from tightness to ease effectively, its tactics must be flexible, too, they declare. END

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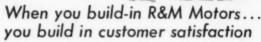
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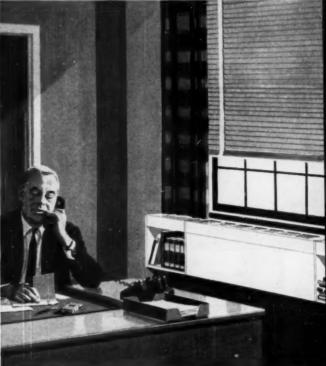


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Venezuela's Voice on Economics



JUNTA MEMBER Mendoza holds lively press conference in Miraflores Palace. He is one of five members of the junta that has ruled Venezuela since revolution in January.

Eugenio Mendoza (pictures) is a millionaire businessman, not an economist, but he casts a deciding vote.

In Venezuela last weekend, jobless workers staged a protest rally in front of the government palace in Caracas. At the same time, prominent citizens handed the ruling five-man junta a formal charge that some members of the armed forces favored a "very limited conception of democracy."

One man who is trying to cope with these day-to-day eruptions in Venezuela's post-revolution atmosphere of crisis is 51-year-old Eugenio Mendoza (pictures). For years, he has been rated as the country's leading industrialist and philanthropist, with a personal fortune well over \$25-million—not huge by Latin American blue-chip standards but still comfortable.

Now Mendoza, at the peak of his career, is playing politician as a member of Venezuela's governing junta. He is considered presidential timber—a possible candidate to head a freely elected government, once the political dust from last January's revolution has settled.

 Two Old Bugaboos—As one of two civilians on the five-man junta—and an experienced businessman besides—Mendoza carries considerable weight in steering the Venezuelan economy. The two basic problems he is tackling are old issues in Latin America—nationalism and oil.

Out of the revolution has come new public pressure for Venezuela to revamp its long-standing arrangements with U.S. and foreign oil companies. The proposals include a bigger tax bite on oil revenues, a halt in granting new concessions, and possibly the formation of a government company to develop remaining oil reserves. To top it off, U.S. voluntary oil-import quotas—which many producers fear may become mandatory in the months ahead—are straining U.S.-Venezuelan relations.

But Venezuela's oil nationalism, unlike Brazil's and Argentina's, is not

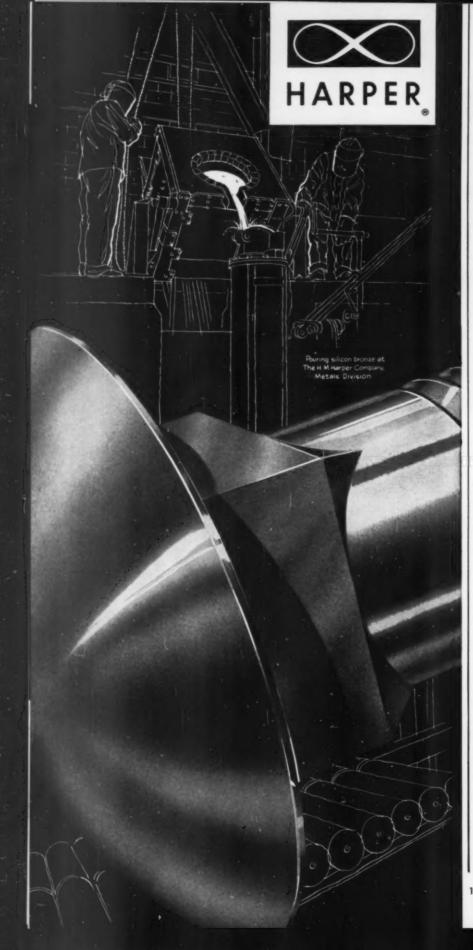


BUSINESSMAN Mendoza meets (right) with Venezuelans and U.S. Steel man Walter Donnelly (back to camera) to map fight against U.S. import quotas.



POLITICIAN Mendoza confers with Rear Adm. Wolfgang Larrazabal (right), head of junta. Mendoza is possible presidential nominee.





rabid—and Mendoza himself typifies this cool-headed approach. His role in the junta is a big reason why U. S. companies, with nearly \$3-billion at stake in oil properties and manufacturing subsidiaries, continue to have faith in Venezuela's future.

In fact, Mendoza has close ties with the U. S.—through personal friendships with such men as Nelson Rockefeller and Eric Johnston and through local companies he owns, such as Sherwin-Williams Venezolana and Shellmar Papeleria Industrial (partly financed by Continental Can Corp.'s Shellmar Div.). Many individuals and institutional investors in the U. S. hold shares in his companies.

I. Sudden Responsibility

Mendoza's new job came suddenly. In the early morning hours of Jan. 23, Gen. Marcos Perez Jimenez—overthrown by a short, bitter revolution—fled Venezuela for a safer haven in the Dominican Republic. (He has since bought a \$400,000 house in Florida.) Later that same day, the new junta headed by Rear Adm. Wolfgang Larrazabal (picture, page 105) called Mendoza in New York, where he has large but unostentatious offices in Rockefeller Center. Mendoza quickly flew to Caracas, conferred for a day with his four brothers, then accepted the post on the junta.

• Businessman Rule—With Mendoza on tap, the junta has been able to bring able business and professional men into the provisional government. It has assembled a first-rate cabinet—for instance, the new Minister of Communications was head of the country's biggest private electric utility. The junta called back Venezuela's veteran petroleum counselor in Washington to run the Ministry of Mines & Hydrocarbons—a crucial job in oil-prosperous Venezuela.

Meanwhile, the junta shifted trouble makers in the armed forces to reserve status or retirement, or shipped them abroad on routine diplomatic mis-

• Economic Cleanup—The junta's—and Mendoza's—biggest job is to straighten out the unbalanced, often crooked economy that Perez Jimenez left behind. While junta members work as a close-knit team, you can see Mendoza's handiwork in many recent moves, including:

Cleaning up overdue government obligations. Total obligations inherited from Perez Jimenez amount to around \$500-million through June of this year. Already the new government has paid out some \$120-million, partly owed to U.S. companies.

With another \$900-million coming due in the next fiscal year, the junta

and Treasury minister are considering borrowing large sums at normal interest, renegotiating contracts, and paying contractors immediately. That would save the government around \$60-million from lowered interest charges, which under present obligations average 18%.

Revising the public works program. The junta has canceled all sorts of fancy Perez Jimenez projects—such as a 1.5-mi. tunnel and a 58-story apartment-office building in Caracas. However, with \$1.2-billion in the treasury and oil revenues flowing in, the new government has new and what it considers more worthwhile projects planned.

These range from construction of 140 schools (with 1,200 the ultimate goal) and a \$220-million development of cattle ranches, to 1,800 mi. of new rural roads and sewerage systems for interior cities.

To take care of 100,000 jobless— Perez Jimenez never mentioned unemployment—the Ministry of Public Works has already put 30,000 workers on the Caracas payroll.

Raising tariffs on textiles to protect new industry. More tariff hikes are in the works for dried milk, wheat, flour, and cigarettes, which the U.S. exports to Venezuela in large quantities.

The wave of tariffs isn't aimed as a retaliatory measure against U.S. oil import quotas. In fact, many U.S. companies want protection for their Venezuelan subsidiaries. Burlington and Celanese—for example—stand to gain by the textile tariff boosts. However, Washington observers pooh-pooh the tariff wall as protection for uneconomical industry.

• Oil Crisis—Mendoza's most ticklish job is to resolve the minor crisis over oil. Last year, at its peak, Venezuelan oil output was running at 2.9-million bbl. a day—with 40% of production shipped to the U.S. in crude or product form. Now, with the Suez crisis past and worldwide oil production outstripping demand, Venezuelan output has slipped back to 2.5-million bbl. a day.

Quotas aren't the whole story. The trouble lies also with the host of new, independent operators who want to get production from new concessions granted in the past two years. Besides the Big Three–Creole Petroleum Corp., subsidiary of Standard Oil Co. (N. J.), Shell, and Mene Grande (Gulf)–50 smaller companies are hunting for oil.

Mendoza is an old hand at fighting U.S. oil quotas. In 1950, when a similar situation arose, he took a top delegation to the U.S. to barnstorm chambers of commerce and Rotary clubs in 25 cities—and helped defeat the proposed oil restrictions. Recently, when the American Chamber of Commerce of Venezuela organized a lobby in Washington to fight oil quotas, Men-



8200 LEHIGH AVENUE . MORTON GROVE, ILLINOIS



*Exclusive patented development of SPEEDRY PRODUCTS, INC., Dept. ws-1 Richmond Hill 18, New York doza did much of the spadework (picture, pages 104-105).

For his 7 a.m. to 10 p.m. job on the junta, Mendoza gets two things: a monthly salary of \$3,300 plus \$1,500 expense money—and a soldier guard at his home in eastern Caracas.

Though the present circumstances are a bit unusual, this is not the first time Mendoza has worked for the government. At the outset of World War II, when he was easily the biggest materials importer in Venezuela, Mendoza was appointed Minister of Development. As minister, he helped negotiate what later became the revolutionary 50-50 oil law, under which the Venezuelan government gets at least half of all oil revenues.

But Mendoza ran into a charge of corruption—the only one ever leveled at him. As minister, he allegedly fed scarce wartime import permits to his own companies. He heatedly denied these charges—but resigned after only a year in the government.

II. Rise of a Tycoon

In any case, Mendoza cuts a unique figure in Venezuelan business circles. Unlike most rich Venezuelans, he has made his money not from cattle, real estate, or mining but from trade and industry. He also has pretty much shunned investment in oil—the kingpin of Venezuela's economy. (Oil development and marketing require too large an investment for most Venezuelans—though they buy oil stocks, supply oil-field services.)

Because of his indifference toward the newer sources of wealth, Mendoza is regarded as a "traditional Venezuelan"—a man who rates the respectful title of "Don." For relaxation, he goes to his 1,200-acre Hacienda Macapo on the shore of Lake Valencia or to his sugar plantation near Maracav.

Right now, Mendoza owns companies with estimated asset value of \$90-million (though the estimate is undoubtedly on the low side). Friends call him "testarudo"—meaning hard-headed—and that may explain quickly why he has done so well in business.

• Up the Ladder-Contrary to stories about him, Mendoza is neither self-made nor self-taught. His father was manager of Caracas' streetear system and promoter of the city's first real estate development. His "colegio"-prep school-education was-good. And his connections with Caracas' leading families were even better.

Skipping university, Mendoza started work at age 18 in a textile importing firm. A year later—in 1926—he became a partner in Moises Miranda & Cia., a construction materials importing house. With the oil boom gathering steam, the business brought big profits—enough for

Mendoza to buy out the company in 1931. Out of this grew Materiales Mendoza which, together with Maquinarias Mendoza formed in 1948, sells U.S. materials and equipment.

• Spreading Out—Then, Mendoza began spreading out—with La Concretera, C. A., a concrete block and tube plant, set up in 1938. During the war he established Protinal, C. A., to produce animal feed for Venezuela's growing livestock industry. After the war, he rode the big construction boom, setting up a sand and gravel company near Caracas, then—in quick succession—cement plants in Barquisimeto, Maracaibo, and Pertigalete. The plants now produce 2,700 tons daily—more than half of Venezuela's cement output.

Six years ago, Mendoza moved into paint, and then into paper and cellophane bag production. In 1954 he organized Venezolana de Pulpa y Papel—a company now building a \$15-million mill to utilize palm and eucalyptus trees.

Capping this long series of moves is an investment trust started in 1956 with initial capital of \$6-million to finance new industries.

• Leadership—Mendoza has had plenty of advice from his family. Carlos, his oldest brother, is founder of the Caracas stock exchange and former president of the Central Bank of Venezuela. Another brother is a stock broker.

Mendoza has shown a flair for driving a hard bargain, making careful market studies before diving into new ventures, and picking top managers. But he has also been a leader in setting progressive labor policy. In the 1930s when Dictator Juan Vicente Gomez, who hated unions, held power, Mendoza started incentive and profit-sharing plans.

As early as 1945, he began large-scale

As early as 1945, he began large-scale philanthropic projects. His best-known activity is the Mendoza Foundation. Income from its \$2.1-million-plus endowment goes into schools, agricultural research, and cultural projects such as publishing books and helping artists.

• Moderate in Politics—As for politics, Mendoza is a middle-of-the-roader. In 1947 and again in 1952, independent political groups offered him the presidential nomination. In 1956, exiled expres. Romulo Betancourt, head of the left-wing Accion Democratica—still Venezuela's strongest party—suggested Mendoza as a coalition candidate to oppose Perez Jimenez. Last year, after Perez Jimenez arrested opposition politicians in preparation for the rigged "plebiscite" last December, Mendoza left Caracas, living in the U.S. from September until his recall in January.

Now, if Accion Democratica and other parties form a coalition for elections—probably to be held next November—Mendoza may well be put up as the man of mediation to help steer Venezuela's political future. END



they corrosion-proofed this dishwasher-and made it quiet, colorful, "gentle"!

Note the silverware baskets in the woman's hand and on the counter and the rack in the automatic dishwasher above. All three items, plus the lower rack (not shown), were dipped in a vinyl dispersion. Note the inside walls of the tub. They were sprayed by the same plastisol. Now they're safe from the hottest water or the strongest detergent. They're also permanently colorful, sound-proofed, and a cushioned cradle for glass and china-ware.

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In Business Abroad



Communists Woo Italian Voters With Sputnik Model and Effigy of Laika

Italy's Communist Party is using super-sales techniques to drum up voters for the party in next month's general elections. One gimmick is an auto float (above), on which the Reds have mounted a model of Sputnik II, complete with dog. The float is rigged with flashing lights, blaring music, and a public address apparatus to harangue listeners. Sputnik has been a boon to Italian Reds, helping them recover from the shock of Moscow's brutal intervention during the Hungarian revolt.

France's Simca Joins the Parade Of Auto Manufacturers Into Brazil

Simca, France's No. 2 auto maker, has joined with Brazilian interests to assemble cars in Brazil. Participating in the new company—Simca do Brasil—are Banco Frances e Brasileiro, and two large steelmakers, Siderurgica Nacional and government-owned Volta Redonda. Each participant holds a 25% interest in the company, which is capitalized at close to \$7-million.

To start off, Simca do Brasil plans to assemble 12,000 vehicles a year in a rented plant at Sao Paulo. Later, a new plant will be built at Belo Horizonte, equipped to manufacture motors, differentials, and transmissions, and to assemble 24,000 "Vedette" models annually.

Big German Maker of Small Cars Comes Under Daimler-Benz Control

To strengthen its position in the European Common Market, Daimler-Benz of Stuttgart has bought the controlling interest in Auto-Union GmbH of Dusseldorf. With this deal, Daimler-Benz will extend its range of production to include small cars.

Until now, the Daimler-Benz Mercedes line has concentrated on large and medium-size cars, while Auto-Union, which makes the DKW, has specialized in small cars with a motorcycle-type two-stroke, 3-cyl. engine. Under the new ownership, Auto-Union will continue its own name and production program.

The major shareholder in Daimler-Benz, and the man credited with the new step, is Friedrich Flick, former

Ruhr iron and steel industrialist.

Japanese Builder Picked to Make Lockheed Submarine Patrol Planes

Lockheed Aircraft Service-Overseas, Inc., signed a \$22-million technical assistance agreement with Kawasaki Aircraft Co. of Gifu, Japan, under which the latter will build P2V-7 Neptune anti-submarine patrol planes

for Japan

The U.S. Navy Bureau of Aeronautics arranged the contract in accordance with the mutual security pact between the U.S. and Japan. The Tokyo government picked Kawasaki to build the planes. Under the agreement, Kawasaki is to get construction material and technical assistance from Lockheed.

The Japanese company has already built 128 Lockheed T-33 jet trainers, and has overhauled F-80 and F-94 jet fighters under previous Lockheed agree-

ments.

Euratom Craves Help From U.S. To Build Up to Six Power Plants

Euratom—The European Atomic Energy Community—has plans to build four to six nuclear power plants (total capacity 1-million kw.) by 1961. But the program hinges on (1) U.S. financial and technical assistance and (2) an agreement on U.S. inspection rights.

At stake for the U.S. atomic industry are markets for reactors plus opportunities to get experience in big nuclear power operations. All reactors called for in the initial program would be U.S. types burning enriched

fuel.

Total cost of Euratom's initial 1-million kw. program is set at about \$350-million for reactors and plants, \$115-million for fuel. Europeans hope the U.S. Atomic Energy Commission will arrange easy financial terms for U.S. enriched fuel and U.S. technical assistance. Euratom also is seeking about \$100-million in long-term aid. Present thinking is that this should take the form of a special Congressional appropriation, rather than Export-Import Bank or World Bank loans.

The question of inspection to prevent diversion of nuclear materials to military uses poses problems for the U.S. and Euratom. In the past, the U.S. has insisted on extensive inspection rights in its bilateral atomic agreements with other nations, except Britain and Canada. Euratom wants to handle its own inspec-

tion.

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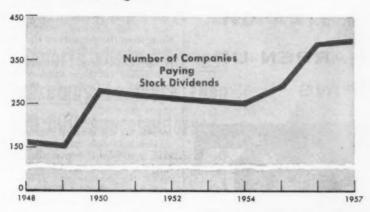
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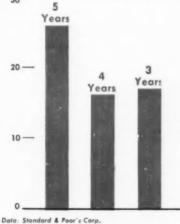
STOCK DIVIDENDS-

1957 saw their use shoot up to another new alltime high . . .



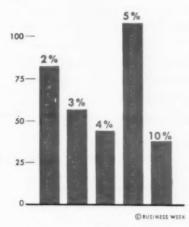
. . . More and more companies are using them regularly . . .

Companies Declaring Regular Stock Dividends 30 -



. . . And here were the most popular sizes of last year's stock dividend payments

Companies Declaring 1957 Stock Dividends of Size Indicated 125



Three Records in a Row

PAYMENT of dividends in stock rather than in cash have become increasingly popular since the war (chart), largely because companies have needed to hang onto earnings to pay for expansion. Last year, the number of stock dividends was the largest on record: Standard & Poor's says it was the third straight year to set a new

This increase in numbers has been accompanied by a dense smokescreen of words, theoretically aimed at explaining the nature and advantages of stock dividends but all too frequently merely serving to confuse the stockholder.

This confusion has been tough on stockholders generally, and especially on those who are counting on income from stocks to help them cope with the rising cost of living. Clearly, every shareholder needs to know whether a stock dividend is, for his purposes, as good as or better than a cash payment, or whether it is merely a sop to keep him quiet.

• Definition-Before launching into any study of the nature and merits of stock dividends, it's essential to say what they are-and aren't. In financial

parlance, the true stock dividend is one of less than 25%-where the shareholder receives less than one new share for each four that he owns. If the dividend is 1-for-4 or higher, it is considered to be a stock split, rather than a dividend. Last year, 33 of the 432 dividends paid in stock fell into this category of splits. Their primary purpose, of course, was to bring the price of the shares down, and so make them available to a broader group of investors

As for the true stock dividends, the less than 1-for-4s, they were issued sometimes to replace cash dividends, and sometimes to supplement them. Usually, companies paid only one stock dividend in a year, but in 1957 a surprising number made two, three, or even four distributions.

To weigh the merits of these true stock dividends against those of the cash payout, you should bear two facts in mind:

· Under no circumstances can the stock dividend be considered as an exact equivalent, in nature or merit, to the cash payout.

• Stock dividends do not always,

and inevitably, confer an income tax boon on the stockholder-although such claims are often made, or implied, for them.

· The Merits-All true stock dividends have one thing in common: Their basic purpose is to enable a company to retain its earnings, mostly to help pay for expansion programs, but partly to cope with the ever-rising cash cost of just plain doing business.

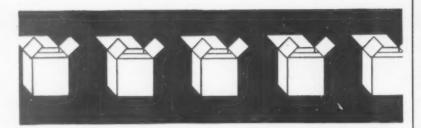
Thus many companies have argued with solid justice that their new-money needs had forced them to resort to stock dividends, and that in doing so they served the best interest of their shareholders. They point out that if they had paid out any substantial amounts of cash in dividends, they would later have been forced to raise expansion money outside. If they did this by debt financing, they would obviously weaken the position of the holders of their equity issues. And if they sold more stock, the position of the old shareholders would many times be diluted to some extent.

What few companies mention and many stockholders do not realize is that a stock dividend actually freezes into the business earnings that have been withheld from the shareholders. That's because, in accounting practice, the company that issues a stock dividend is required to shift an equivalent amount from "earned surplus" to "capital account." And that effectively locks in the capital account an amount that had previously been available for cash dividends.

• The Tax Aspects-The posture of stock dividends before the tax laws is



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more complex than it looks at first

Seventy years ago, the Supreme Court first ruled that stock dividends, unlike cash payments, should be considered as belonging to the corpus—the whole principal of an estate or trust—rather than to income. This judgment was reiterated in 1920, when the court held that a stock dividend "really takes nothing from the property of the corporation, and adds nothing to the interest of the stockholders. Its property is not diminished and their interests are not increased . . . (since) . . . the proportionate interest of each shareholder remains the same."

In accordance with this ruling, the income tax has different treatments for dividends in cash and in stock. If it's cash, you have to report the payment for the year it is received, and you pay on it the normal rate of your tax bracket, with the blow softened only by the \$50 and 4% deduction adopted under the Eisenhower Administration.

Stock dividends, on the other hand, are not taxable in the year they are received. For the records, the average cost of your old shares in the company is written down by the market value of the dividend shares at the time they are issued. Then, presuming you have held the old shares at least six months, you can sell the stock and be subject only to the capital gains tax—whose maximum is 25%—on any profit you realized figured against the writtendown cost of the shares.

However, this rule does not always apply. Suppose you find it necessary to sell your dividend stock to raise cash; then you would have relatively little tax saving at all. If you sell, say, a 10% stock dividend, you have merely raised money that you could have gotten just as easily by selling an eleventh of your original shares. Not only do you have no tax saving, but you are out of pocket for brokerage fees, and you have diluted your original proportionate ownership of the company by 10%.

• Fractions—Stock dividends can be a nuisance for people who do not hold enough shares to qualify for full shares of the new issue. The case is frequent, for many stock dividends run between 2% and 4%. Ordinarily, such a holder receives rights to fractional shares, which he can sell without cost. But if he sells, he has a capital gain to report, and will have diluted his equity in the company. Or, he can buy more rights to round out a full share; but this may put him to an expense he does not want to face.

 The Growth Angle—Generally, the trend to stock dividends has met with the favor of investors more concerned with growth than with income. For one thing, in effervescent markets, the announcement of a stock dividend fre-

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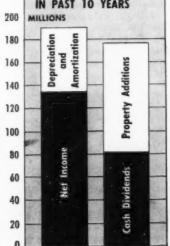
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quently brings at least a moderate price rise in its train.

Investors also have noticed that since the war the stock dividend has often been an added starter, since the companies issuing them have not seized the occasion to reduce their normal per share cash payouts. Thus your cash dividend total shows a bit of an increase. · Prospects-At the moment, few analysts expect that there will be any major drop in the high incidence of stock dividends this year, though uncertain business conditions may bring some slackening. But the value of such dividends is another matter; it's widely felt that the dilution of equities will outweigh the benefits, unless company growth can continue at a faster rate than the increase in capitalization. Stock dividends, it is felt, will drop off steeply, if dilution begins to run consistently ahead.

Wall St. Talks . . .

... about still lower stock prices... one skeptic... move to stop that saving... a "very speculative" market.

Still lower stock prices are expected by Streeters, once the general public realizes—as the pros already have—just how steep the drop has been in the first quarter earnings. The blue chips that weigh so heavily in the Dow-Jones industrial average are expected to be particularly hard hit.

bearish belief has worried one veteran Streeter, though he shares the general glumness. This expert points to the notable inconsistency of the market, and its habit of running counter to both logic and mass opinion.

The consumer is still getting slapped around in Street circles for his urge to save instead of spend. One market expert now wants the Treasury to take steps that will increase the cashing in of old savings bonds and discourage the buying of new ones.

The market is "very speculative," says Gerald M. Loeb, of E. F. Hutton & Co. He thinks that too many people "are buying on optimistic expectations of a short recession and a quick recovery. Few examine the opposite side of the coin and estimate the staying qualities of their purchases should the recession be long or deepen."

Next official drop in the prime bankloan rate will be made by some one of the few remaining large "wholesale"



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banks, some shrewd Streeters believe. They reason that these banks are "low cost" operators since they concentrate on business loans, operate few branches, and have relatively few interest-paying individual savings accounts. Thus in shading their rates to attract new loans they would face little of the cost-price squeeze possibilities that might harass the "retail" banks, with their big branch systems and longtime quest for the savings of the small depositor.

Boardroom miscellany: Merger rumors are linking Industrial Rayon with (take your choice) American Cyanamid, Olin Mathieson, and Spencer Chemical . . . There's less talk of inflation—hopes based on massive spending and other Washington moves to ease the recession . . . Some popular defensive stocks are being eyed with more caution; due to their sharp price rises they're no longer considered "cheap."

New Entry . . .

. . . in securities printing field links old companies in bid to crash specialized market in the U.S.

The business of printing stock certificates and bonds of U.S. corporations—a highly specialized field—has a new entry this week.

It's a field with a relatively low volume of business and with only a handful of companies competing. These include the venerable American Bank Note Co.; Security-Columbian Banknote Co., of New York; Los Angeles' Jeffries Banknote Co.; and E. A. Wright Co., of Philadelphia.

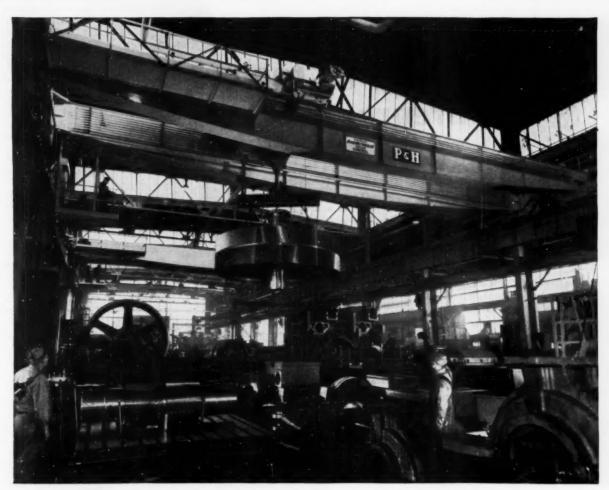
• Newcomer—The new entry also has some venerable connections. The newcomer is De La Rue Banknote Co., of New York, formed by the 38-year-old Sorg Printing Co., New York, specialists in printing corporate documents and London's Thomas De La Rue & Co., world's oldest printer of bank notes, stamps, and securities (BW—Jun.29'57,pl27).

De La Rue Bank Note expects to contract for the printing services of Thomas De La Rue, and sell finished securities through the Sorg sales organization in the U.S. Sorg's Manhattan printing plant will handle some of the less intricate operations. The president of the new company, Perry E. Hudson, Jr., Sorg vice-president, thinks it will be able to crack the U.S. market with the help of lower costs in London.

with the help of lower costs in London.

Thomas De La Rue has sold some custom-made engraving presses to the U.S. Treasury's Bureau of Engraving & Printing. But until now it has been

SPOTS THEM ON A DIME!



$P_{\delta}H$

Electronic Crane Control handles giant loads easily

This amazing P&H control puts an end to lurching starts, swaying loads, and jerky "inching" associated with old-fashioned fixed-speed crane operation. The results — faster, smoother material-handling and longer crane life.

Giant loads glide through the air because this latest P&H development furnishes instant, "stepless" crane response. It enables the operator to increase or decrease speed smoothly and gradually as needed — to spot loads quickly, accurately, and safely.

P&H cranes require a minimum of maintenance. Electronic Control has a simple wiring circuit that replaces 58 contacts — points of heavy wear and

frequent replacement found on other cranes. This significant feature minimizes production downtime and drastically reduces crane maintenance and parts inventory.

Exclusive on P&H overhead cranes, P&H Electronic "Stepless" Crane Control can be used to modernize older AC cranes of any make. Investigate its many advantages — make sure this modern control is included in your next crane inquiry! Write Dept. 110, Harnischfeger Corp., Milwaukee 46, Wisconsin.

HARNISCHFEGER

PsH ... quality and service for 74 years

Are fireproof buildings really fireproof?

from the CLIENT'S SERVICE BULLETIN of The American Appraisal Company

Most of us are incredulous regarding the likelihood of fire destroying or seriously damaging our property. This is particularly true of operators of modern buildings constructed of noncombustible materials and located near first-class fire protection.

The likelihood of a serious fire in such buildings is less than in a frame farmhouse or sawmill remotely located—and the degree of hazard is reflected in the insurance rate. However, the owner of a modern building should not assume he is secure.

One of the worst fires in recent years affected two "fireproof" buildings in North Kansas City, Missouri. It started in a reinforced concrete building and was not brought under control for 19 hours. The results were a total loss to the building of \$300,000 and a loss of \$2,500,000 to the stock. The wind blew the smoke and flames towards a "fireproof" structure 90 feet away, and although the sprinkler system kept the flames from entering, the results were \$100,000 of damage to this building and smoke and water damage to the contents of nearly \$1,500,000.

A noted authority recently wrote that "...no building is really fireproof. Most fireproof buildings are super-efficient incinerators, capable of consuming quickly anything combustible placed inside them. Each is actually a tall incombustible flue, open at top and bottom."

No matter how seemingly "fireproof" the structure, prudent management will wish the protection which fire insurance affords. And because the inducement is so great to carry coinsurance—sometimes at as much as a 70% reduction in the rate—it would seem advisable in most cases to take advantage of it. To do so intelligently, of course, requires a knowledge of the property values.

* * *

An American Appraisal is a detailed inventory showing the true value of every item. It is supported by evidence that compels acceptance...and by records that will be available whenever proof is needed. It represents valuation principles that command respect. It is based on The American Appraisal Company's over-half-century leadership in the field of valuation for purposes of insurance, accounting, property control and corporate financing.

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unable to move into the U.S. market for securities printing for lack of a sales organization. For Sorg, the joint venture permits diversification into an area it heretofore could not afford to enter because of high investment in special equipment and dearth of skilled labor. · Shrinking-There is probably no finer example of the engraver's art than the intricately designed stock certificates and bonds. Like currency and stamps, they're protected against counterfeits by a delicately drawn portrait, vignette, or border-or all three. The drawings are originally etched onto hardened steel by artist-engravers who spend 20 years mastering the trade.

Because of the difficulties involved, there hasn't been a major entry in the field for perhaps 50 years. Some stock exchanges have relaxed stringent engraving requirements, unlisted companies have eased up on use of steel engravings, and many municipalities use less specialized printing processes for their bonds. As a result, sales volume has shrunk and the number of companies in the securities printing field has dropped.

FINANCE BRIEFS

Class I railroads operated at an estimated deficit of \$9-million in February, compared with a profit of nearly \$17-million in January, and \$48-million in February, 1957, according to the Assn. of American Railroads. The last previous monthly deficit for the Class I roads occurred in February, 1951.

January's cut in the "prime" rate charged by banks to top credit risks (BW-Jan.25'58,p34) is making itself felt. The New York Federal Reserve Bank said the cut-from 4½% to 4%—pushed down the average interest charged by leading New York banks for business loans under one year to 4.20% in the first 15 days of March. The average in December, 1957, was 4.63%.

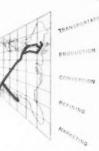
Recession influences are dampening the business of the communications industry. In the first quarter the Bell System installed only 450,000 new phones, against 750,000 in the year-ago period. Long distance messages ran 5% ahead of a year ago, but climbed at a slower rate than the average in recent years, Pres. Frederick R. Kappel told stockholders. Bell System's net income for 1958's first quarter slid 0.9% below the year before, but earnings per share fell 3%-from \$3.32 to \$3.22-due to an increase in the number of common shares outstanding. . . . Per share earnings of Western Union Telegraph Co. fell to 31¢ in the first quarter from 48¢ in



after Rodin's "Psyche" ... 1886

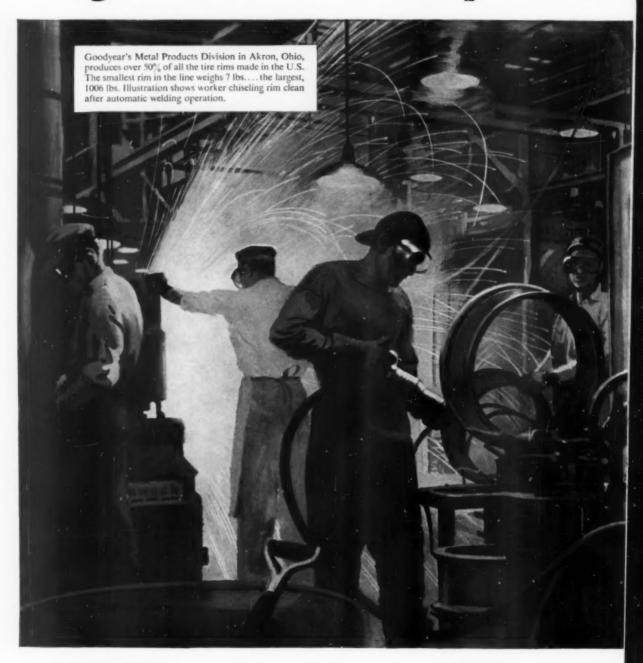
TENNESSEE GAS TRANSMISSION COMPANY

AMERICA'S LEADING TRANSPORTER OF NATURAL GAS



Correct Lubrication in Action...

Hydraulic Pump Life





Complete Engineering Program Proved Petroleum Products Mobil

SOCONY MOBIL OIL CO., INC., and Affiliates: Magnolia Petroleum Co., General Petroleum Corp., Mobil Overseas oil Co., Inc.

Increased as much as 221%

One of the ways Socony Mobil helped The Goodyear Tire and Rubber Company save over twice the cost of lubricants purchased in 1957

Nearly 100 pumps actuate the hydraulic presses and other equipment used to produce wheel rims at Goodyear's Metal Products Division. Under a Mobil program of Correct Lubrication some of these pumps have been in continuous service twice their expected life. Others with a normal plant service life of five years are still operating after 11 years. This plant has never had a pump failure due to lubrication since the Mobil program began.

The fact that a pump failure, besides halting pro-

duction, can cost up to \$400 for labor and \$3300 for other repairs underscores this record.

Here is another example of Correct Lubrication in Action. This cost-cutting Mobil Program gives you the benefit of complete engineering service throughout your plant . . . plus the benefits of Mobil's laboratory facilities . . . and 92 years of lubrication experience. It is turning maintenance costs into profits for The Goodyear Tire and Rubber Company. Why not for you?



\$21,400 saved. Under the Mobil Program, Goodyear, to achieve maximum economy, purchases only the highest quality oils. Mobil engineers constantly check oil condition . . . advise when to reclaim. This assures minimum replacement with new oil.



\$825 a year saved. Mobil engineers helped set up maintenance pattern for Goodyear's many stock handling trucks... made motor oil recommendation. Result—motor overhaul period extended from every three months to every four years.



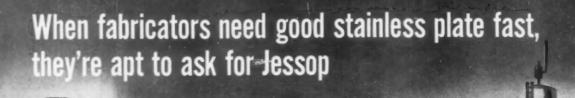
\$6,000 a year saved. High temperatures in paint drying ovens caused stoppage of conveyor system . . . cost \$500 a month in labor and materials. Mobil recommendation of special grease eliminated breakdowns.



Total 1957 savings—2.7 times purchase price of oils and greases. Through close cooperation between company personnel and Mobil engineers, maintenance costs are held to a minimum...oils deliver maximum life.

Correct Lubrication

Another reason You're Miles Ahead with Mobil!



To be more explicit, fabricators are apt to specify Jessop stainless steel plate for the following very good reasons: First of all, they don't have to wait in line for delivery. Jessop operates a compact, highly adaptable stainless plate department-all under one roof from melting to finishing. Schedules can be adjusted overnight to fill a rush order. And they get good plate. Jessop's advanced new chemical control equipment and techniques guarantee that. So if you are a fabricator and need good stainless plate fast, send your next order to Jessop. You'll be glad you did. Write for literature.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK APR. 19, 1958



The French political crisis has boiled over once more, carrying Premier Gaillard down to defeat. Almost anything could happen now—even a coup by the extreme Right.

A coalition of Communists and right-of-center deputies defeated Gaillard this week on his North African policy. The Rightwingers felt that Gaillard was appeasing Tunisia and the U.S.-British "good offices" mission. There was a stormy debate—full of angry jibes at the U.S. And even a Rightist suggestion that France might find a better ally in Russia.

At midweek, Pres. Coty was looking for a new government. There was talk in Paris that ex-Premier Pinay might head a right-of-center regime.

If Coty fails to find a middle-of-the-road government soon, political chaos could easily follow. Then some kind of dictatorship headed by Gen. De Gaulle (or another man on horseback) might become the only out.

Developments in North Africa could affect the outcome. For example, support for De Gaulle would grow if Tunisia takes its dispute with France to the U.N. Security Council and then the U.S. refuses to back France there.

At the root of Gaillard's defeat is Algeria—and France's inability either to win the war or to get out. Related to this tragic issue is the growth of right-wing radicalism in France, especially in Paris. Out of this new force, unorganized as yet, could come an attempt to destroy the Fourth Republic.

There isn't much the U.S. can do today about the French situation. Washington has done its best, with British backing, to find a compromise between France and Tunisia. And the U.S. can't back away from that now, or from its promises to increase economic aid to Tunisia.

The real question is what game Moscow will play. Some observers think the Kremlin may offer France a deal—a Soviet-sponsored compromise in Algeria in return for French withdrawal from NATO.

The French crisis is bound to affect plans for strengthening NATO and for unifying Western Europe economically. Both problems were on West German Chancellor Adenauer's mind when he arrived in London at midweek for discussions with Prime Minister Macmillan.

The fact is that Adenauer (with Economics Minister Erhard) went to London hoping to persuade Macmillan that he should tighten Britain's ties with the Continent and not lean so much on the U.S. In return, Bonn would try to break the deadlock between France and Britain over the Free Trade Area (BW—Mar.29'58,p102).

Now it seems likely that the German leaders will be more concerned about closing ranks with Britain and with the U.S. The new Soviet-West German trade agreement, which is to be signed in Bonn next week by First Deputy Soviet Premier Mikoyan, won't affect Adenauer's pro-Western policy in the least.

In the midst of its own troubles, the West is inching closer to a summit meeting with the Soviets. This week the Soviets accepted a Western proposal for preliminary negotiations involving the U.S., British and French ambassadors in Moscow.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK APR. 19, 1958 U. S. officials figured at midweek that the ambassadors' talks in Moscow were virtually certain. And Washington was betting that these eventually would lead to a summit meeting.

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The Macmillan government is betting against a recession in Britain this year. That explains the standpat budget presented this week by Chancellor of the Exchequer Heathcote-Amory.

The new budget does provide minor tax cuts. But the government still is budgeting for a big surplus. And it is sticking with its tight money policy.

Heathcote-Amory is running risks in keeping a tight rein on the British economy. He made his decision in the face of slowly rising unemployment and other signs of flagging business activity. With the U.S. in a recession, he couldn't be certain about world demand for British exports.

But the Chancellor expects his policy to assure that:

- Domestic demand will remain adequate to keep employment and business at a high level.
- There will be no revival of price inflation to jeopardize the sale of British exports.
- Sterling will become stronger and London's gold and dollar reserves will continue to grow.

The British tax cuts (totaling about \$300-million) go to both consumers and business.

Sales taxes are cut from 60% to 30% on a list of consumer durables, including electric washers and refrigerators. (Not cars or radio and TV sets.) The tax on box office receipts of movie theaters also is cut in half.

There is a new single surtax of 10% on company profits. This replaces a 30% rate on distributed profits and 3% on profits plowed back. (This change could make British securities look more attractive to foreign buyers.) Then, to encourage business capital outlays, there's an increase in depreciation allowances chargeable in the first year.

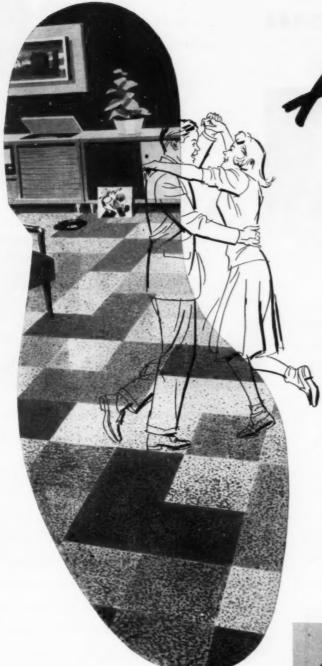
Don't take too seriously reports of a softer U.S. attitude toward international commodity agreements. Washington is making sympathetic noises to:

- Reassure foreign raw material suppliers that the U.S. is aware of low prices and declining sales.
- Prepare foreign suppliers for some short-term trade curbs on imports of things like copper, lead and zinc. (This week Chile's Pres. Ibanez reacted to hints of higher copper tariffs by canceling an upcoming visit to the U.S.)

Latin American countries need more than long-term commodity agreements to weather their economic troubles. Coffee troubles are forcing Colombia to negotiate a \$100-million loan from the Export-Import Bank. Brazil, even worse off on coffee, is asking Washington for help.

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Ameripol...

preferred rubber for casual feet or high style flooring

THE same long-wearing qualities that make Ameripol man-made rubber the preferred material for shoe soles and heels enhance rubber floor tile too. Here a new value is added—beauty.

Floor tile of Ameripol is made in dramatic patterns and colors. Oxidation is held to a minimum, thus original colors last. A tough, smooth surface is easy to keep clean.

Ameripol is a superior material in many respects—resistance to wear, weathering ability, ease of processing into complicated shapes. It's ideal for a wide range of industrial and commercial products... from conveyor belts to extruded window gaskets. Use these advantages in your products. For technical information write for the new booklet "Ameripol".



Cold Non-Oil
Polymers

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Polymers

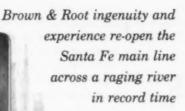
Hot Non-Oil
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Goodrich-Gulf Chemicals, Inc.

3121 Euclid Avenue . Cleveland 15, Ohio









When the bridge over the Washita River in Oklahoma went out, Santa Fe's main line went with it. An emergency call went to Brown & Root to restore service.

Using marine methods and equipment, developed in operations in the Gulf of Mexico, Brown & Root went to work on a 24-hour day. By the time ruined structures were removed, templates fabricated around the clock in Brown & Root's Houston yards were there to guide new piers into position. Although the river remained at flood stage, the new bridge was constructed in a matter of days and Santa Fe's main line was back in service.

Another example of how Brown & Root's experience, organization and flexibility reduced a major crisis to a job done quickly and economically.

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CABLE ADDRESS-BROWNBILT

In Research

Organic Cause for Schizophrenia Indicated Anew in Harvard Studies

New evidence has been found that schizophrenia fundamentally is an organic disturbance in the body

and not a psychological problem at all.

Experiments at the Massachusetts Mental Health Center and Harvard Medical School have disclosed a chemical abnormality in the central nervous system of schizophrenic patients. The chemical under suspicion is neuraminic acid, a substance with characteristics of both an amino acid and an amino sugar.

In a study of 300 persons—some of them with schizophrenia and other psychoses, some of them normal—it turned out that schizophrenics had much less neuraminic acid in their spinal fluid than the others did. In the schizophrenics, the neuraminic acid seemed to be replaced by a specific glycoprotein fraction, a protein con-

taining considerable sugar.

Researchers speculate that, in a schizophrenic, something changes the chemical structure of healthy neuraminic acid. The next step will be to find out what makes this happen—and how to prevent it.

Cancer Fighters Score Many Little Gains, Hope They May Point to Final Triumph

No single tremendous breakthrough emerged this week from the American Assn. for Cancer Research in Philadelphia, but a whole series of important little gains were recorded, collectively pointing to major advances ahead.

So many pieces are falling into place in the cancer puzzle that many scientists are beginning to feel that they may not be far from the prevention and cure of

specific forms of it. Among the pieces:

• The part of the cell involved in the body's defense against transplanted human cancers has been pinpointed and isolated for the first time. Solutions of this cell material, injected in animals, have led to the building up of antibodies that destroy cancer transplants.

• Experiments with MPG, one of the most effective anti-leukemia agents, have shown that it is more effective when administered by mouth than by injection, perhaps because it reaches the bloodstream more slowly.

• Sloan-Kettering investigators report that Mitomycin C, a new antibiotic from Japan, has shown marked abil-

ity to inhibit cancer in animals.

- It has been established that when transplanted cancers grow in mice, properdin—a natural body-defense chemical in the blood—disappears or is destroyed. Since it is known that humans with advanced cancer have little or no properdin in their blood, researchers suspect that properdin may be distinctly involved in the biology of cancer in mammals.
 - A possible test for cancer is seen in the isolation

from human cancer cells of a fatty substance, Cytolipin H. Even in cancerous cells, Cytolipin H is in such low concentration that it is hard to isolate. Therefore, easier methods of detecting it in blood and urine are being sought, as a first step toward a new weapon of diagnosis.

 The purines and pyrimidines—complex chemicals in the nucleic acids of the cell—have finally been synthesized. The chemicals, slightly altered, are being tested

as anti-cancer agents.

Computer Saves Toil for Examiners In Searching U.S. Patent Files

High-speed electronic computers are proving to be a tremendous shortcut for patent examiners who sometimes must search up to 100-million documents before

granting a new patent.

The U.S. Patent Office and the National Bureau of Standards have been collaborating on a long-range program to apply automation to the problems of patent searching. In experiments just concluded, a computer successfully answered typical questions in a patent application by going through more than 200 descriptions of steroid chemical compounds.

GE Firms Plan for Carolina Reactor Rated at 50,000 Kw. of Nuclear Juice

North Carolina will get a \$12-million, 50,000-kw. engineering test reactor second in size only to the Atomic Energy Commission's 175,000-kw. installation at Arco, Idaho. To be built by General Electric in the Wadesboro-Rockingham area and operated by Industrial Testing Reactors, Inc., the layout in its design will resemble GE's Vallecitos Atomic Laboratory, near Pleasanton, Calif. (BW-Nov.9'57,p188).

For research purposes, it will combine the virtues of a high-powered test reactor and an open-pool reactor, with its ample room for experiments. Initially, it will be used to test materials and fuel elements that will go into atomic-powered submarines and aircraft. Target date for the facility to go on stream is Apr. 1, 1960.

New Instrument Detects Radiation Even in Infinitesimal Quantities

An instrument so sensitive it can detect a thousandth of a gram of chromium-51 dissolved in a river has been developed by General Electric scientists at Hanford, Wash. The device can measure concentrations of radio-isotopes even lower than those normally occurring in meat, milk, or vegetables.

It works on the basic principle of gamma ray and coincidence gamma ray spectrometry—a relatively new tool used by atomic scientists to detect radiation and then to identify and measure each contributing radio-

isotope.



Good community relations at a profit

The importance of Air Pollution Control as a community relations factor is widely recognized throughout industry.

Voluntary air contamination control is a significant step toward a successful industrial "Good Neighbor Policy". Of course, in many communities the prevention of air pollution is mandatory.

In any case, management now realizes that effective elimination of contaminating effluents pays dividends in improved community relations.

Air cleaning as an anti-contamination step is doubly advantageous when the dollar value of the recovered effluents actually pays all or part of the installation and operating cost of the air cleaning equipment.

How one large company accomplished this through the help of "Buffalo" engineers and equipment is briefly outlined at right.

PROBLEM:

A large firm suffered poor community relations due to a soda ash discharge from its recovery plant. Damage to auto finishes from the ash was considerable.

SOLUTION:

Installation of a "Buffalo" Type "TE" Washer.

Nuisance to neighbors was eliminated. And, recovery of \$17,000 worth of soda ash per year was effected.

"Buffalo" stands ready to help you with your air pollution problems. Contact your nearby "Buffalo" engineering representative - or write us direct, outlining your needs.

BUFFALO FORGE COMPANY

BUFFALO, NEW YORK

Buffalo Pumps Division, Buffalo, N. Y.

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.



Can Drug Shares Keep It Up?

How high is high? That's the poser that Wall Street professionals are asking this week about the prices of drug stocks. These stocks have been among the best performers in the stock market for close to two years, and they are easily outstepping the industrial averages (chart). But lately a number of big institutional buyers have begun to prune drug stocks from their portfolios, and the professionals are seriously debating whether these issues have been overbought.

There's no single opinion about it. Bache & Co., for one, urges its clients to unload at least some of their big drug equities. On the other hand, Tri-Continental Corp., the closed-end in-vestment trust, feels that drug prices still have room to move and offer longterm rewards-however Tri-Con did not buy drug stocks in the first quarter. Generally, though, the belief is growing that, even if prices still can run ahead of the pack in the currently depressed market, some of the drugs' glamor has rubbed off.

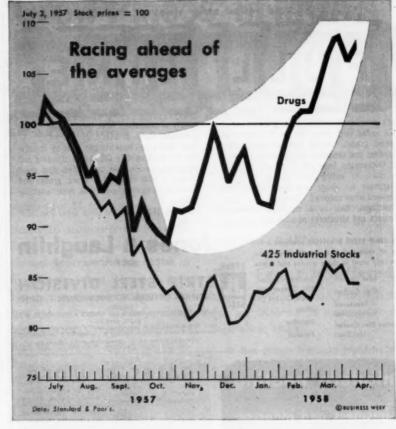
· Sales, Earnings Drop-Behind this feeling are a number of factors. For one thing, despite the scheduled introduction of a number of new drug products, indications are that sales and earnings in 1958 will fall short of the gains made during 1957-when sales were boosted about 15% and earnings even more.

This week, for example, Eli Lilly & Co. reported that sales in the first quarter were \$45.2-million, compared to \$56.4-million in the 1957 period, while earnings per share were at 80¢ compared to \$1.43 a year ago.

Last year's sales were stimulated by the Asian flu epidemic, and it isn't likely that this year's call for ethical drugs-those prescribed by doctorswill be as heavy. Shipments of Salk vaccine have apparently reached a peak. Tranquilizer sales, according to Standard & Poor's, are leveling out, too. And there's evidence of scattered price-cutting in the steroids.

A more immediate worry is that the long-awaited Federal Trade Commission report on antibiotic pricingimminent for the past three monthsis expected soon. And one analyst be-lieves that the market still hasn't discounted what could be a scorching blast against the drug industry for its failure to knock down the prices of antibiotics.

 Defensive Value - Despite these minus factors, many analysts look kindly on drug stocks. They feel that the drugs, although perhaps not showing the same ginger as they did in 1957,



still will move ahead of the market. And they say that a number of companies will be able to show handsome gains. Abbott Laboratories, for instance, reports that it has had a 12.5% rise in sales in the first quarter over the like period in 1957

Thus, these analysts feel that the drugs have defensive traits that mark them as recession-proof equities.

The rise in the prices of drug stocks has been almost sensational. Parke, Davis has reached \$73.50 from its 1957 low of \$42.37. Allied Laboratories is up to \$45.37 from its last-year low of

In this health movement, the drug issues have been joined by their cousins, the cosmetic stocks. Avon, for example, has jumped nearly \$20 above its \$35 low last year; Revlon, \$10 above its \$21 low. Cosmetic equities have blossomed partly because of the teenage market, which is slowly becoming a major buying force.

· Prosperity Base-The drugs' new rush to prosperity is mainly the result of a three-pronged industry drive:

· Research. Basically, the industry

is built on new products. So companies are plowing back much of their profit into research. All in all, they spend about 5% of annual sales on research, compared with an average 1% for all manufacturing industries. More and more of this research is being directed to geriatrics to keep up with the growing lifespan.

• Exports. Foreign sales are registering big gains for the industry. In fact, foreign sales for several companies are growing at a faster rate than domestic sales. Pfizer's sales abroad, for example, accounted for 37% of its total sales last year.

· Marketing. More cohesive marketing programs are being launched. In addition, several of the drug companies are expanding into other drug fields to offer a broader product mix. In the last few years, Warner-Lambert merged with Nepera Chemical Co., maker of Anahist; Schering with Laboratories; Chesebrough White with Pond's Extract Co.

· Out of Doldrums-This internal revolution has not been lost on investors. Just a few years ago, drug stocks were

a wide selection. from J. STRIP STEEL

restricted and standard s cold rolled strip steel



Let's examine this "Full Line" product list of cold rolled strip steel. At J&L it includes all carbon grades, coated and uncoated, alley, stainless and tempered spring steel. It offers all thicknesses from .001" or less to .156" or more, in widths from 1/4" to 24"-and tolerances for gauge and width closer than standard when required. There are "Full Line" advantages, too, in a range of controlled tempers and structures possible only with the variety of annealing, heat treating and rolling processes found at J&L.

Your "Full Line" benefits can start by specifying J&L because only J&L makes standard and restricted specification cold rolled strip steel in such a wide range of analyses, grades and sizes to accurately meet the most exacting

For Strip Steel, call the Strip Steel Specialist

J&L STRIP STEEL DIVISION produces a full line of restricted and standard specification strip steel in these grades and types: STRIP

Electrolytic Zinc, Tin, Copper and

Brass Coated Tempered Alley Spring Steel

Lew Carbon

High Carbon

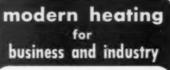
Stainless Molton Zinc Coated Painted (Jul Zinc)

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Reznor direct-fired unit heaters offer the modern solution to the problems of heating commercial and indus-trial buildings. They cost less to install, less to operate and require practically no main-tenance. With sus-pended, duct and free-standing types in all appropriate sizes from 25,000 to 2,000,-000 BTU, the Reznor line includes equipment which is exactly right for your heating





Resner Mfg. Co., 79 Union St., Mercer, Pa





As a reader of BUSINESS WEEK, you are served by the largest world-wide network of business news reporters maintained by any magazine.

". . . some analysts think they should sell at 17 or even 20 times earnings ..."

STORY starts on p. 131

the laggards of the stock market. Earnings of the drug companies were poor. They had been sliding since 1951, when the flow of new drug discoveries faltered for a while.

It really wasn't until the beginning of 1957, when earnings showed 20% to 30% year-to-year increase, that investors were encouraged to put money in drug equities. Now the big question is whether they should keep on.

· Price-Earnings-Part of the debate is whether the drugs are "a cheap buy" now that price-earnings ratios in the field have started to rise a bit.

Historically, drug stocks sell at about 12 times earnings. But some analysts say that they should be upgraded-that they should sell at 17 or even 20 times earnings. The picture is a little mud-died, though. Earnings for 1958 can only be estimated; it's hard to come up with accurate ratios when they must be based on 1957 figures. Generally, however, most of the drug companies are now selling at about 15 times 1957 earnings.

· Profit Margins-Those analysts who back an upgrading of ratios have a batch of interesting statistics at hand. They point out that profit margins in the industry are substantial, running at

an average 12%.

The industry led all others in net income gains last year, according to a First National City Bank report. Total manufacturing was down 14%, says the study, while drugs, soaps, and cosmetics were up 22% over 1956-or \$109-million compared with \$89.3-million the vear before.

Analysts also say that the drug industry is particularly fortunate today, when capital spending is lagging. They figure that huge increases in sales of both ethical drugs and proprietary drugs (those that can be bought without a doctor's prescription) can be achieved without a corresponding growth in plant. Schering's sales, for example, soared from \$19.4-million in 1954 to \$54.6-million in 1956, vet the company's plant account increased only from \$7.5-million to \$12.6-million.

· You Takes Your Choice-In sum, those who think the drugs have been overbought are looking for other industries in which to make short-term profits. But the more conservative investors, warv of a further decline in the market, still lean toward the drugs. They expect the drugs not only to stay ahead of the market for the shortterm, but think that many of the equities hold good long-term rewards. END

216 Branch Plant Expansions in 12-Year Period Prove:

"Industries 'Grow Places' in MOA!"

- 82 out of 107 Branches expand
- 21 expand 4 or more times
- 20 food industry branches account for 54 expansions

Industrial growth figures compiled recently by the Metropolitan Oakland Area (Alameda County) California, will be of interest to expansion-minded executives who are pondering where to locate branch plants on the West Coast.

The figures covering the last 12 years put real meaning into the area's promotional theme: "Industries 'grow places' in the Metropolitan Oakland Area."

The study covers 107 industries that have located branch plants in Alameda County since 1945. Many of them qualify as major or "bluechip" concerns, but there are sufficient smaller firms included to make up an accurate cross-section.

Chances of Expansion

Based on the survey, any firm that locates a branch plant in MOA has excellent chances of expanding.

- They are 3 to 1 if you are in the general manufacturing classification. 82 out of 107 branch plants have expanded one or more times since 1945. Together they accounted for 216 expansions.
- If you manufacture consumer items particularly food or products sold to food processors, the records indicate that you are sure to expand. Out

of 20 food processors, 20 have expanded since 1945. The group accounted for 54 expansions.

Nearly 26 per cent of the firms that added to their branch plants, expanded 4 or more times. Most of these firms produce consumer goods, but quite a number produce industrial items—chemicals, steel, building materials, etc. Their expansions reflect the growing importance of industrial markets oriented to MOA plants.

Although there are many reasons for the growing of MOA industries, the most important is given in one word: Markets—the MOA market (largest in Northern California); the Bay Area, which is growing at the rate of 100,000 new residents a year; California with its better than 14 million population, and the 11 Western States with 24 million.

The one location that is central to serve all of these markets by rail, truck, or air is MOA.

Free Fact File Offered

Send today for the Free Fact File if you are interested in learning these facts about MOA:

- How climate increases productivity
- Why labor requires less supervision
- How to cut shipping time and costs
- Why construction and maintenance cost less
- Where industrial sub-divisions are located
- What governments are doing to stimulate industrial growth

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In the Markets

Stocks Make Market Comeback Despite Poor Earnings Prospect

Undaunted by poor earnings reports and the continuation of the decline in economic activity, the stock market this week was like a boxer shrugging off bruises and coming off the floor with both arms flailing.

The strength of the market surprised most professionals. Many of them thought that it was likely to be the show of strength before a definite downtum. They cited the large volume of short-interest holdings, which tend to bolster the market in the short run but are basically a depressing factor.

But many investors are apparently buying for the long term. Brokers report that a lot of their customers continue to display a deep-seated conviction that inflation is the future threat and that stocks are the only real hedge against it.

In general, stocks that show lower first-quarter earnings are getting hit. Investors, however, are buying stocks that hold promise of maintaining—or bettering—their earnings. And many analysts are saying that, though poor earnings in the first quarter are being discounted, investors have not yet appreciated that future earnings will also be down.

New Closed-End Fund Created To Specialize in Textile Shares

A new closed-end investment trust called the Worth Fund, specializing in textile securities—which have been depressed for more than three years—will soon offer stock publicly. The fund's 15-man board and some outsiders, many of whom are connected with the textile business, have subscribed to 47,210 shares of stock, while 400,000 shares—at \$12.50 per share—will be sold to the public.

Initial assets of the fund will be about \$5.6-million. Robert L. Huffines, Jr., president of Worth and former head of Burlington Mills, Inc., says the fund will invest up to 65% of its assets at the outset in "investment opportunities and special situations."

New York Utility Stirs Debate With Plan for Negotiated Bond Sale

An old investment banking house battle—competitive biddings vs. negotiation for utility financing—has flared anew. The dispute centers around Central Hudson Gas & Electric Corp., which has asked the New York Public Service Commission for authority to sell \$18-million in mortgage bonds by a negotiated deal rather than by inviting bids.

Competitive bidding for utility bonds has been the

fashion in New York since the early 1940s, when the commission adopted a rule that all public utility financing has to be sold at the most advantageous terms obtainable. But many investment bankers—while accepting the fact that competitive bidding is here to stay—prefer negotiation. It allows for a longer period for "educating" investors and holds out a chance to make more profit.

The utility maintains that its underwriters, Kidder, Peabody & Co., figure that its underwriting costs—or spread—will be (1) lower than the average of competitive deals made since the first of the year, (2) lower than the average for the week preceding the offering, scheduled for about May 6, and (3) at least 10¢ less per bond than the issue preceding the Central offering. Arguing against exemption is Halsey, Stuart & Co., the investment banking house that first brought competitive bidding into prominence. It says that a negotiated deal is not the most "advantageous way" of marketing the issue.

SEC Studies Rise in Commissions On New York Stock Exchange

An investigation to examine the "reasonableness" of the boost in commission fees on the New York Stock Exchange is being made by the Securities & Exchange Commission. The rise in fees, averaging 13%, is effective on May 1.

SEC Chmn. Edward N. Gadsby says the probe is not an indication the commission believes the rate increase may be "improper or unjustified." But the agency has never before made so much of an issue of commission increases, though a staff check is not unusual.

Meanwhile, the American Stock Exchange, whose rates are about on a par with the NYSE's new commission's schedules, says changes in its own fee structure are not "immediately forthcoming."

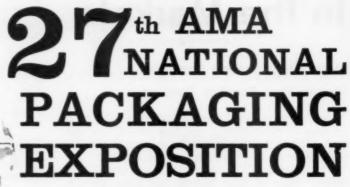
The Markets Briefs

A one-time page on the New York Stock Exchange, Edward C. Werle, was nominated this week to serve as chairman of the Exchange's board of governors. He will be the first man to have headed both the New York and American Stock Exchanges.

Werle was chairman of the Exchange's committee that recommended the hikes in commission fees.

One large institutional investor, State Street Investment Corp., was a net seller of stocks during the first quarter. State Street reported this week it had bought only \$2.5-million in securities other than government bonds, while it sold \$9.3-million worth.

As expected, Getty Oil Co. is offering stockholders of Mission Development an exchange—they will get five shares of Getty for six of Mission Development (BW—Jan.11'57,p59). Getty Oil says the offer is being made to give stockholders of Mission Development participation in the over-all operations of the Getty empire, which includes Tidewater Oil Co., Mission Corp., and Skelly Oil.



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- 39 exhibitors of services, associations, publications.

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In Washington

Payments for Oil Rights Are Income Not Capital Gains, High Court Rules

The U.S. Supreme Court this week killed off arrangements widely used in the oil industry to keep down income tax liability. In a decision on five related cases, the court unanimously held that payment received by a taxpayer for his rights to future income on oil production are taxable as ordinary income and not as capital gains, which carries a lower rate.

The typical arrangement involves assignment of an oil payment right—entitling the holder to a specified sum of money for a predictable period of time—in return for a matching lump sum of cash. After the assigned oil payments equal the lump sum payment, the right to payments goes back to the original owner.

The Internal Revenue Service argued that such transactions produce ordinary income for the person who temporarily gives up his right to future income in return for a lump sum payment. Lower courts had sided with the taxpayers involved.

But Justice William O. Douglas ruled this week these payments are a "transparent device." Douglas said there is no conversion of any capital investment.

The ruling apparently affects over 40 similar cases pending before Internal Revenue, involving millions of dollars in tax claims. The ruling does not apply to payments for assignment of an entire interest or a part interest extending over the entire life of a producing well.

\$1.7-Billion "Pork Barrel" Bill Is Vetoed by Pres. Eisenhower

Pres. Eisenhower this week vetoed a rivers and harbors—"pork barrel"—authorization bill calling for \$1.7billion in new projects.

The President explained that it would be months and years before any of these could be started, and that he had already taken "significant steps to accelerate federal construction activities." If a further stepup in public works spending is desirable, he said, "appropriations will be recommended for projects capable of being started quickly."

McClellan Introduces Bill To End "Vicious" Labor Practices

A wide-ranging labor union reform bill was introduced in Congress this week by Sen. John L. McClellan (D-Ark.), chairman of a select committee that has spent the past 15 months probing organized labor.

McClellan warned that "vicious practices [threaten]

MORE NEWS ABOUT GOVERNMENT ON:

• P. 166 New budget chief's unaccustomed role as spender shows increasing importance of his bureau in federal policy.

ultimately a racketeer, gangster-dominated economy." But chances for adoption of his bill—or any other reform legislation—by this Congress are virtually non-existent.

McClellan's bill would:

• Bar a union from calling a strike or signing a contract without membership approval by secret ballot.

• Force local union officers to stand for election at least every two years.

 Impose Labor Dept. supervision on elections if 10% of the membership want it.

 Force unions to file full financial and organizational statements with the Labor Dept.

CAB Is Writing Stricter Rules For Regional Airlines It Subsidizes

The government is working out a more stringent set of rules covering allowable expenses for 13 regional, local-service airlines on federal subsidy.

Last year, the Civil Aeronautics Board underwrote operations of the 13 carriers to the tune of \$28-million. Chmn. James R. Durfee thinks the cost was too high. The lines report their costs and receive retroactive subsidies. This puts the agency in the position of either crippling the carriers by disallowing the expenses or, often, accepting management decisions of dubious wisdom.

To remedy this, Durfee has asked for a new rule giving CAB an advance look at plans—such as equipment purchases—that would increase a line's subsidy.

Government Project Expected to Yield Food Irradiation Cost Data

The cost of preserving food through atomic radiation should become more apparent in a few years time. The Atomic Energy Commission and Defense Dept. have just announced plans to build a large food irradiator as part of the projected U.S. Army ionizing radiation center at Lathrop, Calif. Target date for the completion of the center is mid-1960.

The proposed irradiator will use 2-million curies of radioactive cobalt 60. Only 350,000 curies of cobalt 60 are now in use in the entire U.S.

Research by the Army Quartermaster Corps has established the technical feasibility of using gamma rays and electrons as a substitute for refrigeration to kill or inactivate micro-organisms responsible for food spoilage.

The proposed irradiator is expected to provide valuable cost data for interested food processors.

He's Lone Wolf of Sugar Trade



Julio Lobo (picture) has quietly emerged as world king of the sugar market.

A few weeks ago, a practically unknown Panamanian holding company named Chiriqui Sugar Mills Corp. paid big Cuban Atlantic Sugar Co. of Wilmington, Del., the price of \$24.5-million for the Hershey properties in Cuba, which at one time supplied sugar for Hershey candy.

For the sugar industry, it was a major transaction. Yet the news stirred little public excitement. This is partly because sugar is a prosaic subject, partly because no well-known name was connected with the deal. Julio Lobo (picture), who controls Chiriqui, is a Cuban operator who has kept himself out of the limelight while he quietly made himself, at 59, the international king of sugar.

Lobo has a reputation for making his moves swiftly and in the dark. In fact, he is known in the trade, in a bilingual pun, as "the lone wolf." Thus, the sugar industry, far from sharing the general public's apathy toward news of his latest coup, is deeply shaken—and worried.

• Leverage—In the closely regulated sugar market, a man with a minor share of the commodity can wheel and deal his way to a dominant position. And, after his Hershey acquisition, Lobo is much more than a minor influence in the world of sugar. The purchase gives him:

• Three more sugar mills, to boost his ownership to 11 mills and put him close to a first-place tie with Cuban Atlantic among sugar producers in Cuba. It gives him production of 7% of Cuba's raw sugar. Besides the 11 mills he owns, Lobo has interests in three others and also finances some crops. Most of Cuba's 161 sugar mills are smaller than his.

• The largest sugar refinery in Cuba. With the Hershey refinery in his empire, Lobo now owns facilities to produce 30% of Cuba's refined sugar.

Also tossed into the deal were two railroads, a peanut plant, a sisal plant, and an electric power station.

I. Sugar Industry Stirred

Ever since Lobo's power play, wires have been humming as some competitors in the sugar industry tried to find out details or to stir up U.S. antitrust

LONE WOLF Julio Lobo is an admirer of Napoleon and collects his autographs.

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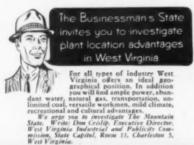
at the main office in Philadelphia, in district offices, and in other factory-owned divisions. Mr. Anders points out that the choice of paper is a voluntary purchase by each independent Sunoco dealer. And the great majority of Sunoco stations buy Scott because they know the public is very familiar with Scott quality!



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action against Lobo, The fuss was even enough to bring Lobo out of his lifelong isolation from the press in order to deny the monopoly charges.

The loudest antitrust cry has been raised by Francisco Blanco, a Cuban sugar producer and speculator who has been locked in a personal feud with Lobo, reportedly since he balked the latter's attempt two years ago to get control of the big Hershey refinery.

· Fight for Control-At that time. Lobo weighed in with a 20-year accumulation of shares in Cuban Atlantic, seeking control of the big company. He was blocked-apparently by Cuban government opposition and by Blanco, who cast his more than 100,000 shares on the side of management to keep Lobo

Later, Lobo's shares were instrumental in upsetting Cuban Atlantic's management. After his defeat, Lobo had sold more than 300,000 shares of Cuban Atlantic to Carl M. Loeb, Rhoades & Co., New York investment banking house, and the Loeb interests gained control of the company in December, 1956. John L. Loeb became chairman of the sugar company.

Blanco charges that Cuban Atlantic sold the Hershev properties to Lobo below real market value, as a return for his help to the Loeb group. Lobo and Loeb deny the charge, asserting that Lobo came into the deal at the 11th hour after another prospective buyer had backed out.

· Falling-out-Blanco's second charge is that Lobo acquired the Hershev property in violation of U S. antitrust laws. He says Lobo directly or indirectly sells about 60% of all the Caribbean refined sugar that is marketed in the U.S. east of the Mississippi. His bitterness, insiders say, is traceable to a second falling-out with Lobo last summer.

The two men had a complicated contract that was allegedly broken-each says the other welshed on the deal.

In simplest terms, the contract called for Lobo to take over all of Blanco's spot (cash) and futures positions in the sugar market and for Blanco to stay out of the market for the rest of 1957. Lobo says Blanco violated the agreement by buying some Brazilian sugar; Blanco says Lobo failed to live up to the contract. No law suit has been filed, but tempers have been running high.

II. Regulated Industry

The very fact that the sugar industry is closely regulated, both at the producing end and at the consuming end, opens the way for operators like Lobo to exert great leverage on the market.

Cuba, the world's leading sugar producer, sets quotas for its growers. The U.S. regulates its supplies, both from its own growers and from imports, under the Sugar Act. Under this law, the Dept. of Agriculture each December sets a quota-actually a consumption estimate-for all the sugars to be marketed in the following year.

For 1958, the quota is 8.8-million tons. It is broken down like this:

U.S. beet processors and cane refiners, 2.5-million tons; Cuba, 2.94million tons; Hawaii, 1.1-million tons; Puerto Rico, 1.1-million tons; the Philippines, 980,000; other countries, 201,000 tons.

Cuba has half a dozen quotas for its producers, earmarking sugar for various markets. This year, the island will produce about 6.2-million tons of sugar, depending on how much the political unrest affects the plantations. The country will consume 5% and export 95%. Of the total production, about 43% is earmarked for the U.S., with any deficiency in the U.S. allowable being made up from inventories held over from previous years.

· Price Controls-The U.S. quota system isolates the U.S. price level from the world market. The Agriculture Dept. can open and close the flow of sugar each vear-or oftener in an emergency. If prices are too high, the department can drive them down by raising quotas, flooding the market with sugar. If they are too low for the welfare of domestic growers, it can

trim quotas, shrinking supplies.
As a result, U.S. housewives pay more for sugar than consumers in the rest of the world. In the world market raw sugar is selling at about 3.4¢ a lb., in this country at about 5.6¢ a lb.

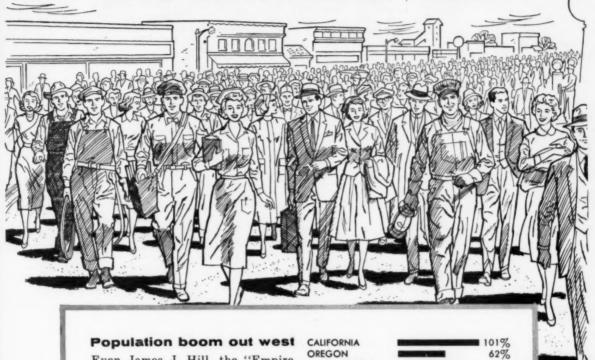
· Market Channels-The quota system leads also to the sale of less and less raw sugar on the open marketthe New York Coffee & Sugar Exchange. The 1.1-million tons of Hawaiian sugar, for example, go to a Hawaiian cooperatively owned refinery at Crockett, Calif., to enter the market in refined form. And the increasing allocation of domestic beet sugar bypasses the Exchange. Yet the price of all raw sugar, freely marketed or not, is based on the price recorded at the Exchange.

Thus, the roughly 2-million tons of open market sugar moved through the Sugar Exchange actually sets the price, too, for the rest of the 8.8-million tons. and any operator who controls a sizable chunk of that sugar is a determining factor in the industry.

· Hold on Supplies-Lobo has been able to attain his present status because he, directly or indirectly, controls or influences a large share of open market sugar.

His sugar trading house, Galban Lobo Trading Corp. of Havana, is rated as the largest in the world. It markets a tidy portion of the Cuban crop





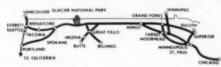
Even James J. Hill, the "Empire Builder", would be astonished at the tempo of latter-day migration to the vast and fertile western region served by his Great Northern Railway. In the past 17 years, population growth in California, Oregon, Washington and British Columbia has been fantastic. More significant to manufacturers looking for new markets or labor resources, it is largely an adult influx. You needn't wait for this region to develop consumers and workers. They're grown up...ready for you now!

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through its U.S. agent, Olavarria & Co. of New York. Though Olavarria has no direct legal ties with Lobo, it is named after his mother's family.

Besides trading in Cuban sugar, Olavarria also buys and sells at least 30% of the Philippines sugar that reaches the U. S. market. This is the only major crop that is wholly on the open market. Olavarria also markets about 60% of the Puerto Rican crop sold here.

Lobo also operates through two other New York brokers, Lobo & Co. and Ascher & Co., which deal mostly in sugar futures. All in all, traders rate Lobo as the supreme speculator of them

all in these futures.

Some U.S. government officials admit they worry about the concentration of power over sugar supplies. Says one official: "Any concentration of business that further narrows trading on the Exchange makes it still more vulnerable to price gyration—eventually affecting the price of the sugar that goes into the sugarbowl or into a cake mix."

• Little Competition—Freight costs make up so much of the cost of a pound of sugar at the wholesale warehouse that each kind of crop can compete effectively only in a given part of the U.S.: beet sugar generally west of Chicago, Hawaiian sugar in the Far West, domestic cane sugar, chiefly in Louisiana and Florida, the cane-growing states. Lobo's sales—he puts them at 5.8-million bags (100 lb. each) out of 90-million bags sold in the area—are principally in the East Coast and Gulf regions.

Normally, if a kind of sugar attempts to compete outside its natural market, the extra cost of hauling will price it hopelessly above local sugar. But Lawrence Myers, head of the Agriculture Dept.'s sugar division, warns: "The tremendous and growing concentration of control in the marketing of Caribbean sugar may make it necessary for the beet industry to market farther eastward than ever before, to protect the inter-

ests of consumers."

III. View From Cuba

Cuba's sugar economy is old and getting creaky. For political and social reasons, the nation's leaders have discouraged mechanization of the industry. Cuban law, in fact, freezes construction of new mills (the newest of the 161 mills was built in 1922), bars demolition of old ones, and bans mergers.

Three forces unite to preserve the status quo: (1) the unions, eager to keep a maximum number of workers employed; (2) some of the sugar growers who feel they couldn't compete with modernized competitors, and (3) the government, which prices stability in its chief export above all else.

Among the leading critics of these restrictions is Julio Lobo, who has advocated an over-all modernization program.

• Must Modernize—"Our future lies in increasing consumption, not in restricting production," says Lobo. "To this end, we must have a broad research program, dedicated to improving the yield and quality of our crop. There's also much to be done in non-food research—bagasse, furfural, and plastics. We must meet the challenge. We must modernize or die."

This kind of talk wins Lobo some admirers in Cuba, and he has influence outside the sugar industry, too. He is one of Cuba's wealthiest men, with important interests in Inalambrica, Cuba's leading cable company; Banco Financiero, one of Havana's biggest banks; an insurance company, a shipping firm, a wholesale importing house, and 25 other companies.

However, in his rise to the top, Lobe has also made enemies, and it's a question whether he can engineer any basic changes in the industry against the in-

evitable opposition.

• The Man—Lobo is well educated and socially charming. He went to Columbia and Louisiana State universities in the U.S., then joined Galban Lobo in 1919 after working as a hired hand in the Louisiana cane fields. He gradually gained control of the company. During the 1930s, Galban Lobo overtook Czarnikow-Rionda as Cuba's top sugar house; during World War II, when sugar prices were riding high, Lobo gained the greatest part of his personal fortune.

He has a passion for work, even though he has suffered three heart attacks, undergone heart surgery once, and walks with a limp from a bullet wound (gunmen were allegedly hired to shoot him down). He works at all hours, any day of the week. At times, he sleeps in his car while touring his

Cuban mills.

"I have no yachts, no country homes," he says. "There is no need for them." He relies almost solely on personal judgment, rarely passes on responsibilities to his subordinates.

• Follower of Napoleon-Lobo has a small but fine art collection, but his strongest interest outside work is in his collection of Napoleonic documents and art works of the period. Since his father gave him a Napoleon autograph at the age of 13, he has collected more than 200,000 documents including 6,000 letters signed by Napoleon. He is establishing a museum for the collection and intends to give it to the Cuban Republic.

Of Napoleon, Lobo has said: "His was a brain that forged a nation. His organization and laws were perfect, and survive to this day." END

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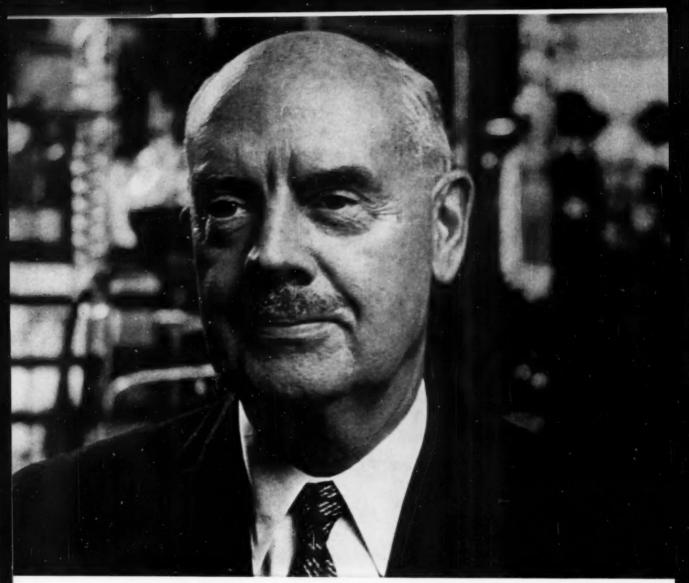
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PERSONAL BUSINESS

BUSINESS WEEK APR. 19, 1958



With tranquilizers and "lift pills" so high in the headlines these days (BW—Feb.22'58,p36), a lot of people are wondering just what the true story is. Two facts about the new drugs emerge fairly clear:

- Both lift pills and tranquilizers are becoming more and more a part of standard treatment for a wide range of emotional disorders—and their use, in the hands of physicians, is becoming surer and safer.
- Nevertheless, there are increasing dangers when these drugs are taken without regard to medical advice. Using them without a prescription or giving yourself an overdose can be a serious threat to health.

"Lift pills" are designed to do just what the name suggests—lift patients up from the doldrums. They fall into two types—the better-known "psychomotor stimulants" and the new "psychic energizers."

The "psycho-motor" drugs (Benzedrine, Desoxyn, Dexedrine, Methedrine, and the newer Meratran and Ritalin) are used effectively to treat mild low mood and lethargy. Taken in pill form, they stimulate the physical-muscular system and sharpen mental attitude—provided you stick strictly to the dosage set by your physician. For example, they may give you just the boost you need when you suddenly feel too sluggish and mentally deflated to keep up your normal on-the-job pace. But first the physician must decide that your low mood results from an emotional problem—and that drugs will relieve the symptoms.

The psycho-motor stimulants act fast. A dose taken just one or two hours before a demanding business session, for instance, usually will bring noticeable results.

But these drugs involve at least three possible dangers, according to some psychiatrists:

- (1) If a patient takes them in excess, he is apt to overreact and become "high." This impairs his ability to carry on mental work.
 - (2) There's danger of a sharp letdown or depression afterward.
- (3) They increase blood pressure and pulse rate, and, as a result, persons with hypertension, for example, can't safely use them.

The new and more potent "psychic energizers" (Marsilid—currently in the news because of confusion over recommended dosage—and others) are used to cope with somewhat deeper emotional depression. Some specialists say they hold great promise. They allow the patient to function normally—without stimulating him to an abnormally high pitch. Moreover, there is no abrupt letdown, and blood pressure tends to be lowered, not raised.

These drugs—also taken in pill form—act much more slowly than the psycho-motor stimulants. It takes a week or longer for relief to appear.

High hopes for the future of psychic energizers are based on a belief that, more and more, they'll become an effective aid to the person who has lost much of his normal enthusiasm for life—for example, the active businessman who suffers a serious emotional slump as he approaches retirement.

The psychic energizers have one great advantage that may make them especially valuable in treating the executive: They don't produce a "peak" effect, and, unlike some other drugs, they leave critical judgment unimpaired.

The **tranquilizers**, of course, are roughly the opposite of the lift pills. They decrease the sensitivity of the nervous system, so that internal and external pressures no longer result in an incapacitating emotional reaction.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK APR. 19, 1958 The physician can treat a wide range of conditions, from mild anxiety to deep emotional upset, by varying the drug and dosage.

But despite the widespread use of both lift pills and tranquilizers—and all the success stories you hear—some specialists are still troubled by possible dangers. Here are several points that worry them:

- Relied on too heavily, these drugs may become a crutch or an escape, and the patient may tend to lose his natural ability to combat the normal stresses and strains of high-pressure living.
- Little is known about how the drugs work, and, with some of the newer ones, long-term side effects are still a mystery.
- Use of the drugs may "cover up" symptoms of a serious condition that should be treated by other means.

When should one consult a physician about the new drugs? Specialists say when some active, early signs of a developing emotional problem appear—for example, a fairly sudden turn to any of the following: irritability, insomnia, decreased appetite, lowered sex drive, worry, depression, excessive desire to drink, many physical complaints.

If you're one of about $2\frac{1}{2}$ -million home owners whose mortgage is held by a mutual savings bank, you may be interested in a new sickness-accident-life policy that insures your mortgage payments.

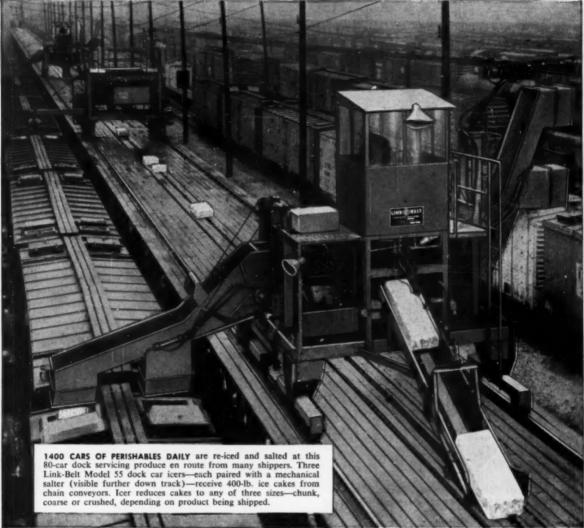
The insurance package will cover your monthly mortgage payments to the bank for as long as five years if you become disabled by sickness or accident. Should you die, payments will be covered for two years. Underwriting the plan (introduced by the National Assn. of Mutual Savings Banks) is the U.S. Life Insurance Co., New York. Cost: \$4.50 for each \$100 in monthly payments. For example, a homeowner now making mortgage payments to his bank of \$150 a month would pay \$6.75 for the insurance, making a total monthly payment of \$156.75.

Coming out this month is **The Ordeal of Woodrow Wilson**, by **Herbert Hoover**—one of the few books written by one President about another. (Last one was Wilson's book about Washington, published in 1897.) Hoover looks at Wilson's efforts to achieve a lasting peace, covering the period 1915-21 (McGraw-Hill, \$6).

Here are the performance dates for the Moiseyev Dance Company, first Soviet dance group to appear here in 24 years, which was greeted by rave reviews this week following its American debut at the Metropolitan Opera House. The group will perform in Montreal May 5-8, Toronto May 9-10, Detroit May 12-14, Chicago May 16-21, Los Angeles May 24-29, San Francisco May 31-June 5, Cleveland June 8, Boston June 13-14, Washington June 16-18, and perhaps Philadelphia June 9-11. New York run ends May 3.

One point to keep in mind, in reference to the tax aspects of working abroad (BW—Apr.12'58,p145): If an American citizen is a "bona fide resident" of a foreign country for at least one full tax year, all of his overseas compensation is exempt from federal income tax. He gets a \$20,000 exclusion (per year) when he remains abroad for 510 full days during any period of 18 consecutive months—even though he is not a "resident."

"Filling station" for refrigerator cars



Link-Belt dock-type car icer speeds icing on existing docks, needs just one operator

RAILROADS concerned with maintaining time-freight schedules ... shippers and growers striving to "make the market" on time—everyone connected with shipping perishables benefits from the new Link-Belt dock-type car icer. It quickly re-ices the shipment en route ... assures arrival of perishables in ideal condition. Designed for easy installation on most existing docks, this machine services cars of all heights, needs only one man at the controls. For details, write for Folder 2643 to LINK-BELT COMPANY, Dept. AV, Prudential Plaza, Chicago 1, Ill.



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Hamlintainers—the versatile knock-down, pallet-type steel shop and shipping boxes built by Hamlin Metal Products Corp., Akron, Ohio—make still another profitable example of the adaptability of N-A-X HIGH-STRENGTH steels.

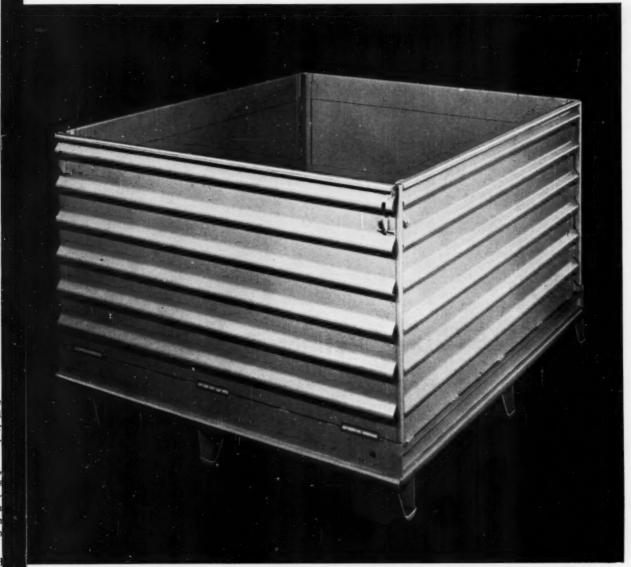
Developed in answer to Hamlin's own shop problems, Hamlintainers quickly proved themselves in the nation's leading automobile, aircraft and appliance manufacturing plants. On the job Hamlintainers must have strength to carry heavy fabricated parts and still be light enough for fast, easy plant handling and minimum return freight costs.

Like so many producers, Hamlin looked for and found these characteristics of strength with lightness in N-A-X HIGH-STRENGTH steels, along with other significant benefits.

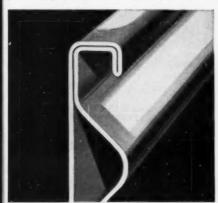
Check These Important Advantages for Your Job: N-A-X HIGH-STRENGTH steels—both N-A-X HIGH-TENSILE and N-A-X FINEGRAIN—compared with carbon steel, are 50% stronger . . . have high fatigue life with great toughness . . . are cold formed readily into difficult stampings . . . are stable against aging . . . have greater resistance to abrasion . . . are readily welded by any process . . . offer greater paint adhesion . . . polish to a high luster at minimum cost.

Although N-A-X FINEGRAIN'S resistance to normal atmospheric corrosion is twice that of carbon steel, N-A-X HIGH-TENSILE is recommended where resistance to extreme atmospheric corrosion is important.

For whatever you make, from steel boxes to boxcars, with N-A-X HIGH-STRENGTH steels you can design longer life, and/or less weight and economy into your products. Let us show you how.



Hamlintainers are the result of more than five years of intensive research, development and practical on-the-job testing. Thanks to N-A-X HIGH-STRENGTH steels, Hamlintainers are tight enough to hold rivets, strong enough to carry forgings and light enough for moving by any standard plant fork-lift truck.



The great formability of N-A-X HIGH-STRENGTH steels makes this design easy to produce. Rounded edges add strength, safety.



In less than 20 seconds, one worker can set up a Hamlintainer, or fold it flat for easy stacking when not in use. This important benefit continues to win new friends for Hamlintainers with manufacturers.

FOR MEN WHO ARE TAKING A HARD LOOK

The base of an office chair carries the load and takes the hard knocks. People kick it, scrape it, bump it and grind sand into it with their feet. No wonder the ordinary base looks shabby even in a few weeks.

You could save money if you could buy office chairs with bases that would never need refinishing and never wear out.

Sturgis office chairs with fiber glass bases cost no more than most ordinary chairs. The Sturgis fiber glass base is unbelievably strong and tough. It will never need to be refinished because there is no finish to scuff off. In short, it will never wear out. When it gets dirty wipe it off with a damp cloth and it will look like new.

Write for a folder showing 33 models of Sturgis chairs, 15 with fiber glass bases. Hundreds of smart, modern color combinations are available.

The Sturgis Posture Chair Company

Sturgis, Michigan. 154 E. Erie Street, General Sales Offices, Chicago 11, Illinois.

LOS ANGELES' finest Industrial Center Planned and Restricted



10 minutes from center of city. Located on Golden State Freeway. Home of many national concerns.

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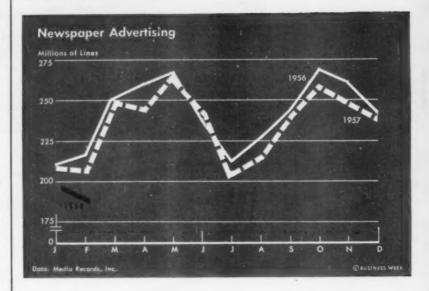
Write for Free Brochure

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GLENDALE 1, CALIFORNIA

CHARTS OF THE WEEK

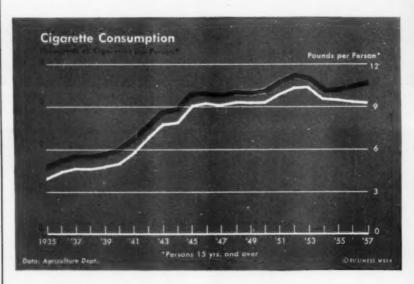


Drop Reflects Business Slide

Advertising figures are reflecting the nation's economic situation. In February, newspaper linage dropped 9.1% below February, 1957, and the first two months of 1958 lagged 7.7% behind year-ago levels according to figures published by Media Records, Inc. covering 52 cities.

The largest decline was in automotive

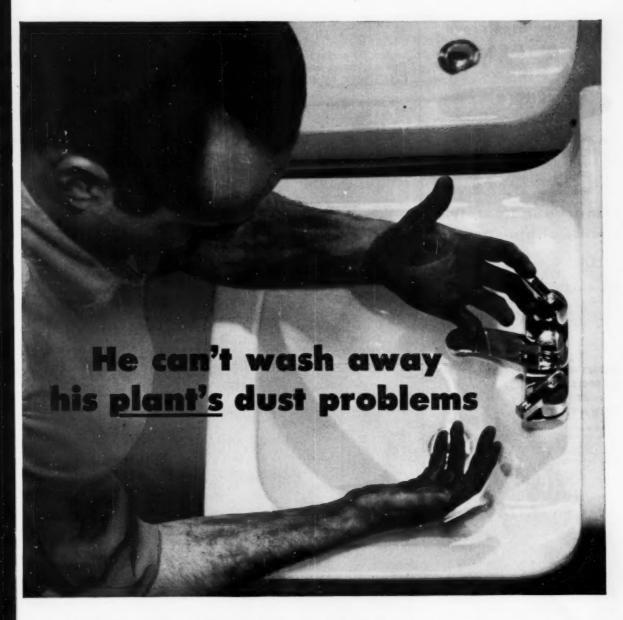
advertising, down 26.9% from a year ago. Classified advertising dropped 13.8%, and total display was down 7.4%. The trend was evident even in 1957. In every month but one, newspaper advertising linage was less than in the comparable 1956 mouth. For the full year, 1957 linage was 2.8% below that of 1956.



Still Below the Peak

Total output and domestic consumption of cigarettes rose to new highs last year, surpassing the previous peaks

reached in 1952. However, while per capita cigarette consumption (for persons 15 years of age and older) rose



Ultimately, somebody has to get rid of "plant" dust, dirt, smoke and fumes. If the job is left up to workers or neighbors the cost to management is exorbitant. Worker morale and efficiency drops, neighborhood relations deteriorate and plant cleaning costs continually climb.

The modern (and thrifty) way to attack the problem is with AAF Dust Control applied at all dust sources. This way, dust is trapped the instant it is produced. It never has a chance to irritate workers, arouse neighborhood housewives or run up your own plant cleaning costs.

For complete information on AAF's complete line of dust control equipment, write for "The Answers to the Five Basic Dust Problems" (Bulletin 270-A1). Address: Mr. Robert Moore, American Air Filter Company, Inc., 387 Central Ave., Louisville 8, Kentucky. In Canada: American Air Filter of Canada Ltd., 400 Stinson Blvd., Montreal 9.





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HOOKS!

I-Beam type design plus alloy steel construction mean extra safety, longer life I Pet. No. 2,646,306

REGISTERED! Certificate beers the chain's guarantee . . . proof test . . . serial number.

ATMOSPHERE HEAT-

on all popular sizes, provides uniformity throughout the sling assembly.

CERTIFICATE OF TEST

Contact your nearest Distributor or write
S. G. TAYLOR CHAIN CO., INC.
Plants: Box 509, Harmond, Indians
300 Smallman St., Pittaburgh 1, Pa.

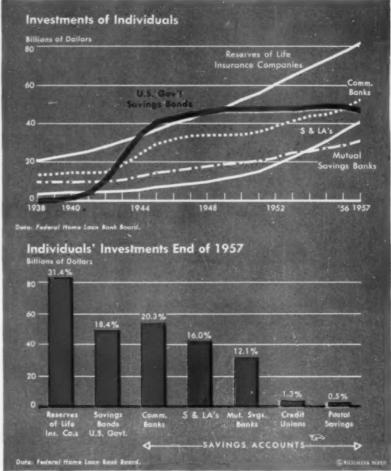
Chain is our specialty, not our sideline!

TAYLOR MADE
Chain SINCE 1873

2.7% to 3,529 cigarettes, the figure still is below the 3,661 and 3,558 cigarettes smoked per person in 1952 and 1953. This data comes from the Agriculture Dept.'s latest report on the Tobacco Situation.

Since 1954, cigarette consumption per person rose 5.7%. But the num-

ber of pounds of cigarette-type tobacco (unstemmed variety) consumed per person declined 5.7% in this period. That's because of the increased popularity of filter-tip cigarettes, which contain less tobacco than regular size non-filters. As a result, manufacturers have made more cigarettes per pound of leaf.



Another Big Savings Gain

People added \$13.6-billion last year to the amount they have tucked away in a group of the major savings mediavarious types of savings deposits and savings-and-loan association accounts, U. S. savings bonds, and life insurance reserves. This marked the fourth straight year that the gain amounted to more than \$13-billion, and carried the total above \$262-billion, and U. S. Savings Bonds third with \$48.3-billion.

The big gains last year were scored by the S&L's (up \$4.9-billion), the commercial bank savings accounts (up \$4.6-billion), and the reserves of life insurance companies accruing to individuals (up \$4.1-billion). Less striking gains were scored by mutual savings banks and credit unions. On the other hand, there was a net cash-in of \$1.8-billion in U.S. savings bonds last year (compared with a very small net decline in 1956), and deposits in Postal Savings continued to decline.

At the end of last year, 31.4% or \$82-billion of the total of these selected types of savings were represented by reserves in life insurance companies. Savings accounts with commercial banks ranked second with \$53-billion.



This is the center of industrial America

Here, a boy can catch a batch of bluegills quicker than you can say Huckleberry Finn! Nature beckons a man and his son to get to know each other as two men should.

You'd never dream that a few minutes away from this quiet spot in a peaceful farming area, there's a concentration of industrial plants . . . factories that turn out motors and fans and surface grinders and engines. Other plants nearby produce papermaking machinery, steel castings, trucks and aircraft equipment; while still others turn out farm equipment, brooders and road building machinery.

Good place for a boy to grow and learn, too—with four colleges nearby and 57 others in the State. These hands that land the bluegills are also able, willing hands on a production line—it could be YOUR production line.



OHIO EDISON COMPANY

PENNSYLVANIA POWER CO.



It's a good place to locate. For details on locating your plant in this region, write C. A. Thrasher, Ohio Edison Company, 43 North Main St., Akron 8, Ohio; or P. G. Dingledy, Pennsylvania Power Company, 13 East Washington St., New Castle, Penna.



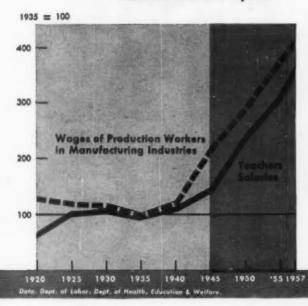
The Real

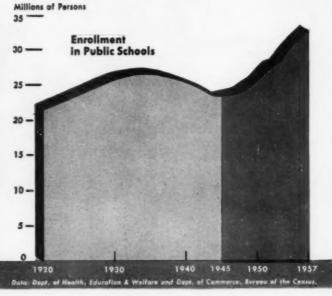


It's not just that teachers are underpaid



Or that enrollments have shot up

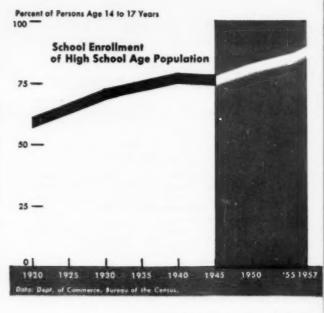




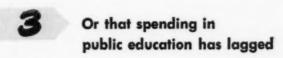


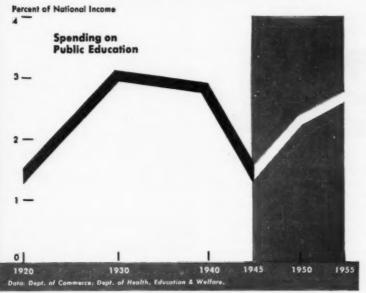
The real problem is that we have put practically all U.S. youngsters into high school

BUT...



rouble with U.S. Education





And we have never made up our minds what we ought to teach them

Trigonometry
U.S. History
Physics
Chemistry
Homemaking
Music
Algebra
Biology
Photography
General Mathematics
Auto Mechanics

Ancient History
Typing
Solid Geometry
Domestic Art
French
Plane Geometry
Wood Shop
English Composition
Retail Selling
Spanish
Typing
English Literature
Interior Decorating

Latin
Physical Education
Print Shop
General Shop
Family Relations
Shop Mathematics
Mechanical Drawing
Metal Shop
Physiology
German
European History

@BUSINESS WE

The U.S. educational system is not so bad as you might think if you listened only to the critics who have rushed to their typewriters since Russia's first Sputnik went up. It can, after all, claim credit for producing enough scientists and statesmen and artists and authors to give the U.S. a stable government and a standard of living that is the envy of the world.

But without any doubt it is bad enough—so bad, in fact, that the problem of doing something about it emerges as one of the great challenges to the U.S. of the mid-Twentieth Century, so bad that our efforts to do something about it inevitably will reshape our ways of living, patterns of spending, and scales of social values for the next 50 years.

Since World War II, the most obvious and most urgent problem of U.S. education has been sheer numbers. From the moment the baby boom of the 1940s surged into kindergarten, school boards all over the country have been scrambling to build new classrooms and hire new teachers—at last count, they were still something like 140,000 classrooms short. In the scramble, most of them have let go by default an older problem: the question of what to teach and how to teach it.

**Focus of Discontent—It is this rather than the numbers problem that really lies at the heart of the discontent with U.S. schooling. For one way or another, the numbers problem is being handled. Where school programs were well planned and standards high to begin with, the deluge of new students has brought little serious deterioration. It is where the programs were already fuzzy and the standards low that education has caved in entirely.

Criticism of U. S. schools didn't start with the Sputniks. It has been going on for years. But Russia's sudden demonstration of scientific equality, if not superiority, has forced the whole country to look some of the facts in the face. Naturally, this has proved painful. In a very real sense, the educational institutions are the reproductive system of a society: To entertain serious doubts about them is a traumatic experience.

It is a healthy experience nevertheless. For the U.S., if it looks carefully and honestly, can identify its basic school problems and decide what it wants to do about them.

For various reasons, these problems

come into clearest focus in the public high schools. The elementary schools have their troubles, too. In fact, many of the most serious criticisms of U. S. education apply mainly to them. But about 9 out of 10 elementary school children go on to high school. If the elementary schools have done their job badly, it is the secondary school that has to pick up the pieces. And this applies not only to such things as reading ability and skill with figures but also to basic attitudes, values, and work habits.

The high school is the institution that takes in boys and turns out men. It is the place where somebody has to decide just how much these men shall differ one from another, how much the slow learner and the fast learner

can take, how much the non-college group, which is still the great majority, is to have in common with the smaller group that is going on to college. It is the point where the least common denominator of each succeeding generation is determined.

Within a few years, this point of decision may shift to the colleges. And certainly within three or four years the colleges are going to be beset with a numbers problem similar to the one that now swamps the lower schools. But that time has not yet arrived. For the present, the problem of U.S. education emerges as a high school problem.

It is a tough problem. But there are answers for it. And already you can find a surprising amount of agreement on

what those answers are.



U.S. public education, says I. L. Kandel in his book American Education in the Twentieth Century, "is based on the principles that it must be classless, coeducational, nonpartisan in politics, and secular."

It is also based on the principle that it must be universal. Almost all states require school attendance at least through the age of 16. Some set the minimum age for leaving school at 18. This means that the high school has to deal with everybody, a complete cross section of the population. It is the only secular institution that shares with Christianity the conviction that all souls are worth saving.

The assignment of this responsibility to the public high schools is relatively recent. It was not until 1874 that the legality of spending public money for secondary schools was established. As late as the 1920s the high schools still considered themselves selective institutions, responsible only for dealing with the bright students or at least the moderately bright. Slow learners—an earlier and less compassionate age called them "dullards"—were expected to drop out and go to work or switch to a purely trade school when they found the going too tough.

• Thirties Theme—But after 1920, the idea that high school education should be available to everyone began to make headway. And in the Depression of the 1930s, it became established policy. The main motive at the time was to keep young people out of the labor force. But the schools generally welcomed the new responsibility. They saw it as a

chance to make education a mighty force in the future of the country.

U.S. educators were feeling their oats in the 1930s. The ideas of the "child-centered" approach, education of the "whole child," and "learning by doing" were spreading from the primary grades into the high schools. Teachers colleges were hammering away at the notion that it wasn't the subject matter but the method of teaching that counted. Success was to be measured not so much by mastery of a subject as by the "growth" that a student demonstrated; and "growth" was a hazy concept, often equated in the teacher's mind with docility.

With comparatively few qualms, the high schools seized on their new responsibilities not only as a chance to teach more students but as a chance to take a new approach to the education of all students.

• Wasted Talent—In the excitement of the change, in the scramble to make the new arrivals feel at home, the schools worried less and less about the academically talented, the group that previously had been their sole concern. In theory, the new approach should have given the able students the same attention and held them to the same standards as before. In practice, they found it both easy and agreeable to lose themselves in the crowd. There wasn't enough premium on academic achievement to make them sweat.

Here and there a school—usually in a high-income neighborhood—stuck to its old standards. But for the country as a whole, the final result of making secondary education universal was to take most of the meaning out of the high school diploma. Just as bad money, according to Gresham's Law, drives out good, so the soft courses drove out the hard ones and low standards encouraged low performance.

THE WORST LIABILITIES

If you take an inventory of U.S. education today—some 25 years after the high schools went through their great change—you find some imposing assets. In terms of number of children in school, literacy rates in the population, average educational level, college degrees, number of schools per capita, the U.S. has nothing to worry about. But any honest inventory also will show three frightening liabilities:

A shaky financial base. There are too many individual school districts, and they are entirely too dependent on real estate as a source of revenue. At the latest count, there were 53,000 independent school districts in the U.S. Fiscal authorities guess there should be only half that many to get any sort of financial stability and to provide schools

of economical size.

Low pay—and correspondingly low standards—for teachers. The average income of the U.S. school teacher is \$4,520—about on a level with the average factory worker, and something like half the pay of a locomotive engineer. In 1956, about 33% of all elementary teachers had no college degree, 21% of all public school teachers had done less than four years of college, 40% of the secondary school teachers had not done as much as five years of college level work.

Basic confusion in philosophy. The paradox of dealing with the whole range of 'student abilities and yet remaining classless, coeducational, nonpartisan, and secular is still unresolved. There's good reason to think that the more able students are getting short-changed or are being allowed to short-change themselves. At the same time there's evidence that the less able are not getting the things they really need most.

Where Schools Go Soft

It's hard to measure educational values. And so it is hard to say just how much of the torrent of criticism now flowing over the public schools is justified.

Where the attacks center on the elementary schools, the educators have their answers for critics, such as Rudolph Flesch, who have sprung forward with their own one-shot cures for what they conceive to be the trouble. Flesch's enormously popular Why Johnny Can't Read was a slashing attack on the methods used to teach reading—and a hard sell for Flesch's own version of the phonetic approach. To answer Flesch and similar critics, the schools have dug up tests given a generation or so ago. Almost without exception, todays' studdents can knock them over.

In Lincoln, Neb., some 5,000 children in grades 3 to 8 were given a reading test in 1921. The same test was given to a similar group in 1947. The 1947 group scored higher at every grade level, with the fifth grade group of 1947 topping the eighth grade group of 1921. In Evanston, Ill., tests administered in 1933 showed substantially higher reading comprehension and vocabulary when they were given again in 1954.

In short, say the educators, teaching methods today are every bit as effective as those of a generation ago. If Johnny can't learn to read in 1958, he would have done no better in 1908. The difference is that today the schools will keep him and sweat it out with him. In 1908, they would have let him sit in second or third grade until he got tired and quit. The more enlightened schools, in fact, would have had a row of outsize desks at the back of the room for the likes of him.

Core of Criticism

When the critics train their fire on the high schools, the answers come with less assurance.

The educators can and do produce statistics to show that public school graduates generally score better in college entrance examinations than private school products. In the March, 1953, college boards, for instance, candidates from the public schools racked up a higher mean score than candidates from the independent (including parochial) schools in every test except advanced mathematics and French.

But all this proves is that a relatively limited number of crack students still are being well trained to stand a specific type of exam. It doesn't tell us anything about the students who don't take the college boards. And it doesn't answer the charges of such critics as Arthur Bestor (Educational Wastelands) and Albert Lynd (Quackery in the Public Schools) who insist that the schools are wasting time teaching "life adjustment" when they should be driving for intellectual achievement.

• Strong Medicine—This is a criticism that goes to the heart of the trouble. For the weakness in U.S. education is not just a matter of classroom shortages

or inadequate finances. It also involves the basic question of what the schools are trying to do.

It is not a criticism, however, that you can apply without some important qualifications. The strong medicine of academic challenge that Lynd and Bestor and Robert M. Hutchins and Stringfellow Barr prescribe may be just the thing that the bright student needs. But for the slow learner it would be a lethal dose.

As Paul Woodring points out in his book, A Fourth of a Nation, college professors are likely to take it for granted that even the dull boy can profit from the classics because professors "have never met a really dull boy of the kind that can be found in almost any public high school." It is true, Woodring goes on to say, that you can teach Don Quixote or Hamlet at the level of the lower third of high school sophomores, but in the process everything that makes them great books has to be dropped out.

• To Meet the Needs—The real task of the schools is to design a program that is flexible enough to accommodate both the boy who is going to college and the boy who is going to work in a filling station. There must be some sort of "life adjustment" and vocational courses in any comprehensive high school. But the schools will also have to see to it that these courses have standards of their own and that they don't crowd out the old academic curriculum.

The trouble is that the non-academic subjects inevitably tend to become soft courses—pleasant, undemanding ways to pass the time and pick up credit toward a diploma—and as such they appeal to bright students as much as to anyone else. And in the ponderous machinery of the state education departments there usually are built-in devices to put pressure on the schools to make this line of least resistance even more tempting.

Here, for instance, is an excerpt from a letter written recently by a state industrial arts supervisor to a high school superintendent:

"I discussed with Dr. ——— [the high school principal] the low enrollments in senior high school industrial arts courses. He pointed out that a large percentage of the pupils are college bound. I suggested that he study . . . the possibility of developing a course for these pupils within the framework of the state syllabus. I also recommended that metal, printing, and textiles be organized on one side of the shop and wood, electricity, and ceramics be included on the other side. This will provide for representation of all six major industrial sections."

• Cheapest Diplomas—In this popularity contest among courses, the losers

have been the tough academic subjects -what the educators refer to as the "solids." Most states require a high school student to take four years of English and three or four years of history (often called social studies), but requirements in languages, science, and mathematics vary from nothing at all to only one year or two. It is possible to get a high school diploma without any algebra, without any languages, ancient or modern, other than English, and without any science other than what Glenn O. Blough, president of the National Science Teachers Assn. bitterly refers to as "cocoons, rocks, and hickory nuts dragged in by the children and deposited on the science

The result of this approach was summed up by Marion B. Folsom, Secv. of Health, Education & Welfare, in his memorandum to Pres. Eisenhower outlining the federal program of assistance to education that is now before Congress: "... Only one out of three high school graduates has had a year of chemistry, only one out of four has taken a year of physics, and only one out of three has had more than one year of algebra. There is a current shortage of more than 8,000 high-school science teachers and yet—of the 5,000 [college] graduates prepared to teach science last year—2,000 went into industrial jobs rather than the classroom."

Elsewhere in the same memorandum, Folsom commented tartly: "All the forty-eight states now have special units and programs to promote the teaching of home economics, agriculture, and distributive trades. Only eight states, however, had special directors or units last year to foster and improve the teaching of science and mathematics."

HOW WE COMPARE

In the past few months the tendency of U.S. schools to play down the tough subjects has been contrasted by their critics with the various European educational systems, especially with the Russian. And the excitement in this country about Russian education has been helped along not only by the Sputniks, but also, late last year, by the publication of a lengthy study, Education in the U.S.S.R., by the U.S. Office of Education.

It's obvious from even a quick look at this study that the Russian system is tough. The basic unit in the Russian primary-secondary system is the 10-year school, which compares with a standard 12-year combination in the U.S. But the Russians pack as many classroom hours (10,742) into those 10 years as we do into our 12. They start a year later but graduate a year earlier.

Moreover, the Soviet system comes

down hard on science. There is only one curriculum-no electives, no "wide exploratory experiences"-and that curriculum breaks down into about 42% science and math, 47% humanities, and the balance for physical training, drawing, singing, and the like. graduate of a Russian school in June, 1955, had taken courses in physics for five years, astronomy for one year, chemistry for four years, biology for five years, and mathematics for his full 10

Russian similations

Actually, the Russian achievement isn't as impressive as it looks. There are several important qualifications to keep in mind when you run through

that list of subjects.

In the first place, the Russians like to give several separate courses covering the same material that U.S. schools combine into a single broad course. Thus, in the ninth grade, a standard U. S. course is general science, which usually meets five times a week. The Russians break it up into an hour a week of biology, four of physics, and three of chemistry. They still come out ahead on total hours-by a ratio of eight to five-but not by the ratio of 15 to five that you might think if you assumed that each of their courses was full-time. · Same Shortage-In the second place, time spent on a course gives no guarantee of quality. Russia is stretching her teachers thin, just as we are. There is evidence that much of the learning is by rote and that some of the material so grandly labeled "physics" is on so low a level that a U.S. school might

call it "shop. Finally, you have to remember that in the upper grades the Russians are dealing only with the top end of the ability spectrum. About two-thirds of the students drop out before they ever take that hour a week of astronomy and psychology that make the Russian

curriculum so imposing. In this respect, the Russian schools resemble the other Continental systems rather than the U.S. For this country is the only one in the world that tries to put all its students through the same

Tough Systems

In England, there is a rigid screening examination-given at about the age of 11 or older-that is widely feared because it ruthlessly separates the students into those who can go on to higher education and those who will stop at the secondary level. If you place at the top on these "eleven-plus" exams, you go on to the grammar schools, which give a rigorous classical education, or you may, if you wish, choose a technical school. But if you fall below the cutoff line, you go to what the British call the secondary modern schools where the standards are lower and, it is generally believed, the teaching is inferior. The cutoff line varies, but the group going to the grammar schools can be as small as 10%; it is rarely over 25%.

The grammar schools take it for granted that they are dealing with a hand-picked group and work them ac-Martin Green, a young cordingly. British essayist, described it recently in

Harper's Magazine:

"We competed in a way that an American would scarcely imagine, perhaps. At the end of each term we were arranged in order from first to thirtieth, in each subject, and again, from first to thirtieth in the form. All this is mostly pedagogy, of course, but it has its educational effect, too. It magnifies the intellectual process in our eves, fosters a quick-witted apprehension and manipulation of facts, and a disrespectful familiarity of thought; but above all, it makes us extraordinarily malleable, in our deepest imaginations, by teacher.

· Attrition-About 20% of the grammar school students can't stand the gaff and drop out without finishing. The remainder feed into the universities, joining on equal terms, as far as scholarship goes, the graduates of Britain's famous "public" schools, such as Eton, Rugby, and Harrow, which are not public at all but fiercely and expensively private.

The British system, thus, is based on the proposition that the leaders and the followers should be separated at the age of 11-at around the level of the U.S. sixth grade. American teachers are likely to be shocked when their British counterparts say to them, as one recently did to Anthony Scarangello, a teacher of Smithtown, N. Y .: "After all, we must face the reality that very few of the people of any country are really educable beyond the elementary school level."

Scarangello, who had been studying in Europe on a Ford fellowship, reported in The Clearing House magazine that in spite of this attitude, "England continues to be one of the bright spots in European education." Elsewhere, the selectivity and the "authoritarian methods of teaching" are even more evident. In Milan a technical high school director, asked why more students did not finish school, replied, "A good worker is better than a poor student." In another Italian school, the director frankly declared, "If so many can now enter, it must mean that

our entrance requirements are too low." · Rising Resentment-But the British themselves are by no means content

with their system. Martin Green accuses it, in effect, of making every educated Englishman a cut-rate Anthony Eden. And the parents of English children coming up to eleven-plus accuse it of perpetuating class distinctions and of allocating a child his place in life before he has had a chance to show what his real qualities are.

The rising resentment against the eleven-plus probably will force some sort of change in Britain-particularly if the Labor Party comes to power any time soon. In addition, similar pressures are building up in France, where the terrifying baccalauréat examination is the hurdle that every student must clear to get a certificate from a secondary

school.

Even in Russia there is a mutter of discontent. Doctors have complained that the schools are driving so hard they are ruining the children's health. And the Russian Republic (largest of the component republics of the U.S. S.R.) recently had to order its schools to cut back the amount of homework they were giving.

No Guide Abroad

Thus, it looks as though the European educators-instead of setting a pattern for the U.S.-will soon be looking hopefully to this country for guidance on some of the problems that American teachers have been living with since the 1930s. It's clear that the U.S. cannot hope to solve its problems by imitating one of the other systems. The U.S. is committed to the idea that it can profitably give 12 years of education to everyone. And it is charged with the duty of using those 12 years to give the rising generation what it needs to make the most of its own life and to carry the responsibilities that a democratic system puts on its citizens. This is a large order, and there is no other place in the world that can show us how to fill it.

· Paths for the Able-Nevertheless, the comparisons with Russia or Britain do give us some idea of what we might be doing with the corresponding ability group in this country. And any such comparison will drive home the point that U.S. education on the whole has been doing too little with its most able students.

This is a fault that doesn't show in the figures on classroom shortages and teacher training. But it is emerging rapidly as the most serious of all the charges that can be made against U.S. schools.

what are the answers?

The problems of U.S. education are a complex package. The answers, to the extent that there are answers, will also be a package. There isn't, and there can't be, a one-shot remedy.

Among educators at all levels and outsiders who are interested in education, there is fairly wide agreement developing on what some of the components of the package should be. The common ground includes the following changes:

 Reorganization and broadening of the financial base. This means consolidation of the tiny school districts into economical units. It also means more state aid for hard-pressed districts, and, in one way or another, more federal aid.

• Upgrading of faculties. In part, this means higher pay and higher social status for teachers. But getting better teachers is not just a matter of hauling out the checkbook. It is a process that has to start far back in the colleges with teacher training—and even back of that with the able young men and women who now look at teaching as a possible career and decide they wouldn't touch it.

 The widest possible use of movies, television, and other teaching aids—not as substitutes for the good classroom teacher, but to save his time and make the most of his abilities.

Special courses and special guidance for the academically talented students. This means grouping together the brightest boys and girls in every high school and providing them with courses that take them beyond the average of the others in their age group.

 A thorough overhaul of courses to eliminate repetition and outdated material-and to add more advanced material.

 A reassignment of subjects to the various grades so that the high schools will take on more of what's now considered college work, and the elementary schools take on some of the high schools' work.

 The development and expansion of relatively new types of educational institutions—the community college and the two-year technical school.

• Cities' Special Problems—All this applies primarily to the schools outside the biggest cities and schools in the better neighborhoods of the big cities. The city schools that draw their students primarily from the slum areas face a different situation. Theirs is a problem in sociology, not to say penology. They must work with a group that doesn't want to be in school anyhow and that bears a smouldering grudge against the society the school represents. The first thing these schools need is a program of social work. After that, they can start thinking about education.

Outside of these schools, the most encouraging thing you can say about U.S. education today is that it is making progress. The most disheartening thing you can say is that the progress isn't fast enough. Nothing is so irretrievable as time lost in education. Each year a new class shows up at the school gate, whether the school is ready or not. And each year a senior class marches out with a stack of diplomas that say it has been educated. If those diplomas are a lie, the schools never get another chance to make it good. And society has to live with the results for 40 or 50 years.

THE CRY FOR CASH

In many ways, the financial problem of the schools comes ahead of everything else. In education, as in much of life, money can't fix everything, but you can't fix much without it.

The trouble with public school finances is that they lean far too heavily on local real estate for their revenue. All states supplement this by some form of payment to the school districts out of general revenues. But in the poorer parts of the country, even the taxing power of the states doesn't put enough financial muscle behind the schools. The variation in personal income available for taxation per child of school age is enormous—all the way from \$12,256 in Delaware to \$3,364 in Mississippi.

• Aid and Independence—This is why many serious students of education think that a program of federal aid to the public schools is the only answer. But there is bitter resistance to federal help, and it doesn't all come from the

people who don't want to see any more money spent.

Education in the U.S. traditionally is a local affair. The separate school districts are fiercely independent and violently resentful of interference even from the state, let alone from Washington.

To some extent, this feeling undoubtedly arises because the school is the main branch of government that the parents have to deal with in bringing up their children. It is the point where collisions between the family and society are most likely to occur.

In any event, suspicion of federal activity in education is deep-rooted. And opposition to federal aid—with its implication of federal standards and federal supervision—is powerful enough to rule out any broad program of direct grants.

President's Program

This is one reason the program that Pres. Eisenhower sent to Congress last January skirted so cautiously around the problem. Essentially, the Eisenhower recommendations are not a federal education program but a first-aid kit. The main features provide for:

 Matching grants to the states to encourage systematic testing of the aptitudes and abilities of students.

 Matching grants for counseling and guidance.

 Federal college scholarships, to be given on a basis of need, with preference for students in science and mathematics.

 Matching funds for a four-year program to encourage local school systems to upgrade their science and math instruction.

• A four-year program of graduate fellowships to train new teachers, and a system of direct grants of up to \$125,000 to graduate schools.

 Financial aid for the establishment and operation of training centers in foreign languages.

Limited as this is, it is tailored to what the Administration sees as the most urgent need of the moment—the training of more scientists and engineers for the great technological race with Russia.

The most important part of it is the testing and guidance program. This is supposed to spot, far back in the lower grades, the able students—estimated to be as many as 200,000—who now leave high school each year without going on to college. The idea is that once they are identified the local schools can train them for college (and get them scholarships if necessary) instead of letting them drift through

high school any way they may like.

• Small Step—This, for the present, is as far as the federal government is willing to go. It has even decided that this is not the year to push the plan for aid to school construction that it offered a year ago.

But with or without federal aid,

spending for education will go up. The school age population is growing faster than the tax base; just to maintain present quality, such as it is, the U.S. will have to spend more. The real question is whether it will spend enough more to get the improvement in quality that it needs.



In a sense, teacher standards and teacher pay are simply part of the problem of school finance. Something like 60% of the typical school district budget falls under the item "instructional services." The main reason for the low pay scales is that school boards all over the country have dragged their feet in a desperate effort to hold down taxes.

Low pay in turn has made it hard to keep good teachers or to be very fussy about the qualifications of new ones. More and more for the past 15 years, the liberal arts or science graduates with anything on the ball have gone to work for industry, leaving teaching to the graduates of the schools of education. And while the schools of education have been trying to upgrade, they have found it harder and harder to sell teaching as a career for a man who thinks he has some real abilities.

 Old Economics—Historically, the U.S. has been accustomed to get its teachers at bargain rates. The reasons for this curious bit of economics ceased to apply some years ago. But it is only now that the public is beginning to

A generation or so ago, teaching was one of the few occupations with a flavor of intellectuality that was readily open to the child of a poor family. (Law and medicine required long and expensive preparation, but a bright young man or woman could do a hitch in teachers college or normal school and go to work at once.) It was, moreover, one of the few respectable occupations open to women. As a result, teaching got more than its share of smart, earnest people, to whom it represented a step up the social ladder.

Today's salary scales in education still show the effects of that old situation. In spite of the social and economic changes that war and inflation have produced, the schools are still paying as though they could take their pick of thousands of eager young applicants.

50-Year Lag—In a study sponsored by the Ford Foundation's Fund for the Advancement of Education (Teaching

Salaries Then and Now) Beardsley Ruml and Sidney G. Tickton found that if you allow for the effects of inflation, teachers now are getting just about what they were in 1904. The high school teacher in a big city (over 500,-000) averaged \$1,597 a year then. In 1953, his money income was up to \$5,526, but deflated for rising costs that's worth only \$1,577 in 1904 dol-Meanwhile, other wage groups have been improving their status steadilv. Ruml and Tickton calculate that in 1953 it would have taken \$9,400 a year to give the big city high school teacher the same position with relation to other groups that he had in 1904.

The surprising thing is that good teachers have continued to come out of each June's graduating classes and that many of them—though not enough—have stayed in teaching. In that fact lies an important truth about teachers and teacher pay.

It's More Than money

The best teachers teach because they like to. Some will talk naively but sincerely of "dedication" and "fulfillment." Others will simply say that they like to be doing something useful. In either case, what they mean is that teaching is a satisfying experience for them.

Such people will go into teaching as long as the pay and working conditions are not so bad as actively to discourage them. They are the people who should go into teaching, and the only people who should.

At present salary levels, even these people are getting discouraged. The U.S. will have to raise its scale of teaching salaries to keep them coming—and to keep them from drifting out of teaching once they have started. But you can't expect higher salaries to end the teacher shortage overnight by attracting droves of smart young people. There aren't that many potential good teachers coming out of the uni-

versities or working their way through the undergraduate pipeline. Even with adequate salaries, it will take a generation or so to recruit the faculty that we need.

• No Ordinary Labor—There is no greater illusion than the idea that just by raising salaries high enough you could fill all the teaching jobs with smart young men who would make things hum. The eager young beavers you would recruit wouldn't be able to stand the kids. And the kids wouldn't be able to stand them.

All this is not an argument against higher salaries. It is a warning that you can't think about teachers in the same terms that you think about a factory labor force.

Many school boards have approached their teachers lately to talk about installing a system of merit pay, to replace or supplement the usual fixed schedules based on seniority and educational qualifications. They often have been astonished to find that the greatest opposition came from the best teachers, the ones who would qualify for merit pay under anybody's definition. The reasoning: Teachers shouldn't have to compete with one another; it hurts their teaching.

• For the Record—As one elementary teacher explains his stand, "Suppose I look at the class they want me to take next year and I see three slow learners in it. The way things are now, I'll take it and do all I can for them. But if I'm bucking for a merit increase, I'll think, 'Uh-uh, let somebody else take them. They'll louse up my record.'"

This is what a businessman would call a "civil service mentality." And that is a fair description: Teachers are civil servants, in law and in attitude. They think and act a little differently from the ordinary salaried worker. Pay is important to them, of course, but security, status, and protection from public harassment often count for more.

The Other World

Industry and the schools have cooperated in many parts of the country in attempts to find at least partial solutions to the problem of supplementing teachers' pay. One of these joint projects also aims to help teachers live a life less isolated from the world outside the schoolroom.

This project started two years ago when Arthur D. Little, Inc., Boston engineering and research company, and the schools of Lexington and Acton, Mass., recruited four young science graduates to work a three-year stint,

part of the time teaching in the schools and the remainder working in Little's offices. The four graduates work in pairs at the combination jobs. In the first semester, one teaches while the other works at A. D. Little. Next semester, they change places. And in the summer, both work for the company.

The project grew from the realization that though the shortage of science teachers stems basically from low pay, it's made worse because few high school science teachers have any incentive to keep up with the latest scientific research. So, while each teacher in this project makes about \$1,000 a year extra from his work for the company, he also spends a sizable part of the year in research.

• New Blood—The project has a further aim: to attract into teaching those new science graduates who might otherwise go to industry. For this reason, only straight science graduates are eligible—on the theory that a science graduate who has already taken a course in education presumably intends to teach, anyway. To show that it's trying to recruit new teachers—not more industrial scientists—the company has another rule: It will not hire any graduate who takes part in the plan.

THE CHANGES AHEAD

In all those areas—in teacher pay and teacher training, in the schools' finances and in the schools' basic concept of what they should be doing—there is wide agreement that things are not working as they should. It's clear that the U.S. education system has substantial shortcomings. But at least there is an equally substantial awareness of those shortcomings.

In most of those areas there is already action as well as the awareness of the need for it. What that action is, how it is developing, and where it may eventually lead will be the subject of the final installment of this two-part report, to be published next week.

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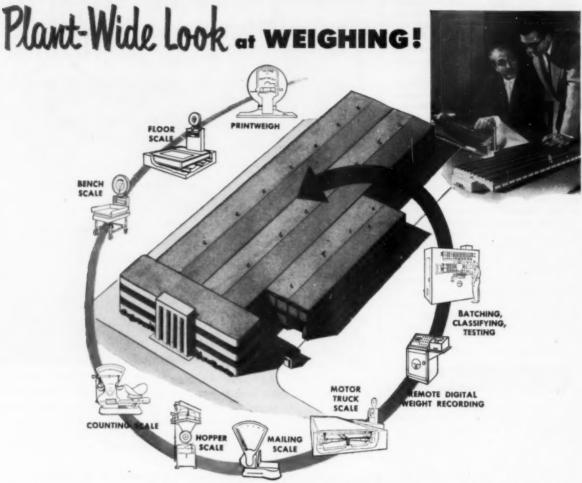
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Studying Costs? It pays to start with a



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In Management

Too Much Management Control Can Smother Research, AMA Is Told

Too much management can really mean mismanagement in the research and development areas, Irven Travis, vice-president in charge of engineering at Burroughs Corp., warned an American Management Assn. forum on engineering management. Travis said the fundamental problem was to match properly the jobs and the staff members and to "create an atmosphere for results." Beyond this, he feels, any further management control is likely to result in a sharp decrease in profitable technical output.

Travis addressed himself to "need-oriented" research, done always with goals measurable in dollars-and-cents. He suggested that only companies with annual revenues in excess of \$500-million could afford a basic, or "curiosity-oriented," research program, and that smaller companies hoping to foster such scientific delving could do more by giving support to established research institutions than by carrying on their own programs.

\$2.5-Million Grant Inaugurates Ford Foundation's Aid to B-Schools

Ford Foundation has made two grants totaling nearly \$2.5-million, the beginning of what it terms a "major program" of aid to college business schools. The first awards are going to Harvard University and the University of Chicago, and the foundation says others will be made within a year.

The money is earmarked for doctoral programs since, the foundation feels, these are the basic sources of business school teachers. At Harvard, the gift included \$70,000 a year for the next five years for 35 fellowships each year; \$50,000 a year for faculty salaries, and \$250,000 for faculty research, to be spread over five years. At Chicago, it's \$50,000 a year for fellowships; \$125,000 for research; and the income from \$1-million to endow two professorial chairs.

Tidewater Abandons the Big City, Goes to Hinterlands for Annual Meeting

Tidewater Oil Co. is bucking a trend. It's moving its annual meeting from New York City to the hinterlands, in this case to its new refinery in Red Lion Hundred, New Castle County, Del.

This year such companies as Corn Products Refining Co. and Penn-Texas Corp. have made it easier for stockholders to get to the annual meeting by moving it to New York from, respectively, Jersey City, and Cres-

MORE NEWS ABOUT MANAGEMENT ON:

 P. 164 Armco Steel and National Supply: What the supplier-customer marriage will mean to the companies, the steel industry, the oil field equipment picture.

son (Pa.). Liggett & Myers Tobacco Co. moved its meeting from Flemington, N. J., to Jersey City, and just this week Metal & Thermit Corp. decided to move from Rahway, N. J., to New York City beginning next year.

About 65% of Tidewater is owned by Jean Paul Getty interests.

Barium Steel Corp. is taking its annual meeting away from the big town too—from New York to Phoenixville, Pa. But at Barium, a dissident stockholders' committee is opposing the move.

Mesabi-Reserve Accounting Dispute Boils Up Into a Proxy Fight at Mesabi

Mesabi Iron Co. again has a proxy fight on its hands. "Investment counselor" Gilbert M. Haas and Mesabi director and Vice-Pres. Arnold Hoffman are soliciting proxies for a board slate that would elect Hoffman president. The insurgents say the present head of the company, Richard C. Klugescheid—general counsel for Kennecott Copper Corp. until his retirement in 1954—is primarily concerned with the company's dispute with Reserve Mining Co. and that other management is needed for "young, vigorous ownership-management."

Mesabi's long-running battle with Reserve, which is owned jointly by Republic Steel Corp. and Armco Steel Corp., involves the contract under which Reserve mines taconite property owned by Mesabi. Mesabi's remuneration is based on a percentage of the profits, and management there claims that Reserve is using accounting practices that serve to hide earnings from the operation. The matter is now in arbitration.

Another set of dissidents waged an unsuccessful proxy fight last year.

Management Briefs

Management at Best & Co. won approval of its stock bonus plan (BW-Apr.12'58,p63), but Bankers Securities Corp., which managed to round up 156,000 shares against the plan to management's 345,000, says it will go to court to block the proposal unless the company "puts some standards in."

After losing a request to the Securities & Exchange Commission that he be allowed to keep secret his holdings in Collins & Aikman Corp., Nicholas G. Reisini revealed that he and his Robin International, Inc., and import company, own 13% (72,000 shares) of the New York textile concern. Reisini said he hasn't asked for a board seat, but that he "may have some wishes and desires" to pass on to management.

When Steel Marries a Market

- Armco Steel's merger with National Supply gives Armco a captive market, National an elastic steel supply.
- It means expansion that will push Armco up among steel's top five, and removes bars to National's growth.
- It will have an effect later on U.S. Steel and Crucible, intensify competition in oil field supplies.

Corporate mergers are a lot like eigarette advertising: Some companies do it to get the leadership, but the frontrunners do it to keep leadership. That's just about what was at stake, this week, when the stockholders of a couple of leading companies—steelmaking Armoo Steel Corp. and the National Supply Co., maker of oil field equipment—voted on a merger.

Under the terms submitted to stockholders, expected to become effective Apr. 30, the merger would:

Create an \$880-million survivor company—whose first problem would be growth

Broaden significantly the relatively narrow product line Armco manufactures.

 Give Armco a captive market equal to about one-sixth of its present capacity; and a market centered on products that ought to average 10% higher in price than Armco's present product mix—which, pricewise, is already one of the carbon steel industry's most attractive.

• Dictate an expansion of Armco capacity that, over about six years, could hardly avoid pushing it up among the first five steel producers in terms of ingot tons of capacity. In terms of sales—on the basis of 1957 volume—and of total assets, Armco would immediately become the fourth largest producer, by a substantial margin.

 Make possible further growth by National Supply in the oil field supply business by assuring it an unlimited supply of steel—something it has never had when the need came.

I. It's a Natural

The Armco-NSCO deal, in which Armco will be the survivor, marries a steelmaker who doesn't make pipe to a pipemaker who doesn't make steel (actually, each is in the other's business now, but only technically).

Diversify—For both, it enables diversification. It lets Armco spread out into the premium-priced oil country tubular goods market, and the standard pipe and electrical conduit businesses. This Armco achieves by acquiring not

only the facilities but also the production, sales, and distribution forces of one of the leaders and one of the largest independents in its field.

National, 80% of whose business comes from the petroleum industry, acquires not only an expandable supply of steel but also the diversification of a major steel producer.

• . . . And Grow—And for both, it insures growth. National has been unable to get long-term commitments for as much semifinished steel as it believed it could sell in pipe form. Yet it simply couldn't afford to build its own steel-making capacity (BW—Jun.30'56,p50).

Conversely, if Armco intends to keep its current customers and supply NSCO as well, it will have to build new plant diligently over the next six years.

Looking beyond the principals, some other companies are involved. Most directly, that means U.S. Steel Corp. and Crucible Steel Co.

II. Rearranging Competition

U.S. Steel now is obligated to supply, and National must buy from USS not less than 75% of the latter's tube round and skelp requirements (used for seamless and welded pipe respectively). Crucible contracts to supply the remaining 25% of tube round needs. There are tonnage limits beyond which neither U.S. Steel nor Crucible is obligated—and these limits have been the core of National's problem.

With the merger effective, National will be able to terminate the USS contract as early as May 1, 1964, 28 months earlier than otherwise. That will give Armco time to install the needed capacity.

Crucible's contract may not be terminated before 1962.

 Good and Bad—You might think this makes the merger look harmful to U.S. Steel and Crucible. But that's not necessarily so. The bad part, of course, is having to find new customers one day for capacity that now is sold.

Offsetting that, though, are several factors. For example:

 The semifinished products each company has been selling National are fairly low-profit items. Both companies will have a chance to upgrade the profitability of that tonnage.

• More important, termination will make available steel capacity that otherwise would have to be built at very high costs. For Crucible this will doubtless be more disadvantageous than for U. S. Steel, since it will represent a larger percentage of Crucible's capacity and will affect products that Crucible, primarily a specialty steelmaker, would be less likely to expand.

• Shift—In oil field supplies, Armco will become the fifth among the seven largest steelmakers to get its own supply business—joining U.S. Steel, Bethlehem, Jones & Laughlin, and Youngstown Sheet & Tube. This means more steelmaker competition for the independents and even the four other steel companies will notice it. Among the larger independents supply houses that will remain will be Mid-Continent Supply Co., Houston Oil Field Supply Co., and Wilson Supply Co.

One topic of speculation: the future of the highly profitable Fretz-Moon Tube Co., of Butler, Pa., largest manufacturer of small-diameter welded pipe, which is jointly owned by National Supply and Republic Steel.

III. Who Gets the Prize?

The merger agreement calls for National Supply owners to get 85/100 of an Armco common share per NSCO share (there's no preferred stock involved). Aside from some differences in accounting methods, the main justification for that seems to be Armco's consistently better earnings.

The new National Supply Co. will be a wholly owned subsidiary of Armco, staffed and managed by "substantially the same people." Three NSCO directors will go on the enlarged Armco board; Armco will have the other 14.

- Solid—From the standpoint of what each company wanted and needed, the merger looks like a pretty solid maneuver:
- National, needing steel capacity, in effect bought 1,072,136 annual tons of integrated capacity from one of the most profitable steelmakers at a cost of \$101 per ton. That's like buying a topgrade suit for \$38.75.
- Armco bought a million-ton customer, complete with a fabulously expensive finishing plant and a sales and distribution organization good enough to turn up \$300-million of volume. In effect, it paid for it with steel capacity it sold at 108% of gross book value and one-third more than its market value per ton. END



The case of the balking bridge

It was a dandy day for dedicating a bridge. Which was all to the good since Hizzoner — Mayor Philip E. Bodkin—was about to officially open the Philip E. Bodkin Lift Bridge—5 million bucks worth of steel, concrete, electrical cables and motors.

As Hizzoner's assistant, I had whipped up a little ceremony complete with speeches, music and ribbon-snipping. As a smasheroo finale, the big electric motors would ease the lift section down into place and a motorcade, with Hizzoner at the helm, was to roll

over the bridge into Smedley.

Well, the speeches came off splendidly. Hizzoner's niece hacked the ribbon apart. And as the Firehouse Band blatted out a fanfare, everyone gazed expectantly at the lift section, waiting for it to descend in glory.

But it didn't descend. In glory or anything else. Even though Hizzoner huffed and puffed, stormed and hollared, it didn't come down until two days later when some defective electric cable had been replaced. But by that time, Hizzoner wanted to forget the whole thing. 'Specially when I reminded him that the guilty power cable had been a bargain special supplied by his Cousin Al over the objections of the engineers, who had specified Okonite.

Next day, however, Cousin Al was back working at the filling station and the whole darn electrical system of the Philip E. Bodkin Bridge was being rewired with Okonite Cable.

And, for some reason, Hizzoner keeps about three inches of heavy-duty Okonite Cable on his desk for a paperweight.



where there's electrical power... there's OKONITE CABLE



MAURICE H. STANS built up one of largest accounting firms in U.S. before he came to Post Office Dept., then Budget Bureau.

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BUSINESS WEEK . Apr. 19, 1958

Budget Cutter in Spender's Role

New budget chief Stans busily speeds anti-recession spending. His bureau gets steadily more important.

Maurice H. Stans became Director of the Bureau of the Budget only last

Already he is on his way to becoming the biggest peacetime spender in Washington history-and it's doubtful whether a more surprised man ever hung up his hat in the ornate Executive

Office Building.
Stans joined the bureau last year as Deputy Director in the midst of the great economy wave that swept both Congress and the Administration. He came in as an economizer, happily slashing outgo and helping with the fiscal 1959 budget, which went to Congress last January. This budget was peppered with economy ideas, calling for reductions in 10 broad areas, among them agriculture, welfare, and public

But the word now is to spend-and Stans is working 10 hours a day at it. · Unhappy Prospect-If Stans and his associates read the signs correctly, the current quarter will see a sharp jump in outlays-up \$1.4-billion from January-March (BW-Apr.5'58,p30).

A surge of that proportion would send spending to an annual rate close to \$79-billion. That means the spending rate would be breaking the \$80billion barrier in a few more months.

Stans is not happy over that prospect. He recalls that when the budget crossed the \$70-billion line only last year, a great outcry arose and the economy drive resulted. With spending now at the threshold of \$80-billion, and lawmakers eagerly pushing through one spending program after another, Stans thinks it's time to slow down.

• The Difference-The recession-of course-makes the difference between this year's spending climate and last year's anti-spending drive.

For some three months now, Stans has devoted himself largely to undoing the economy drive of 1957. He's the man chiefly responsible for translating the mood of the Administration and Congress into hard dollars, to be pumped out as quickly as possible in the hope they will stem the business downturn.

· Misunderstood-This is a role that throws the spotlight on the greatthough often misunderstood-power that the Budget Bureau exercises over the government and the economy.

Last year, for example, the bureau told agencies they could not spend even what Congress had appropriated for them. Now they are being told they can have all the dollars they are ready to shovel out. In the Corps of Engineers and the Reclamation Bureau alone, this switch is freeing some \$100million for public works.

The power to do such things mystifies and often angers lawmakers, who believe the Constitution grants Congress sole authority over spending. The bureau is constantly the target of ill-

tempered speeches.

Even the heads of the spending agencies lash out against the bureau and against what they say is its arbitrary power to block their favored projects.

I. Talent for Survival

Stans, a quiet-mannered, gentlevoiced professional accountant who just turned 50 last month, has already displayed a high talent for survival in one of the toughest jobs in Washington.

Like many another Eisenhower stalwart, he was a successful businessman before coming to Washington. In 1928 he started as office boy in the accounting office of Alexander Grant & Co. of Chicago; 10 years later he owned the firm. When he resigned his business connections to stay in government service, his company was among the 10 largest in the country, and his income was around \$85,000 a year.

· Chance Entry-But he didn't start in Washington with an imposing title, or in an important office. He came in 1953 as one of a group of 40 consultants to the House Appropriations Committee, with no thought of remaining. By chance, he was assigned to look at post office operations, and produced a 100-page memorandum that recommended an increase in spending for research, along with an overhaul of office practices. He wound up as Deputy Postmaster General in 1955

Last summer the then Budget Director, Percival F. Brundage, asked Stans to lunch, proposed that he come to the bureau as Deputy Director with the idea of taking charge after a sixmonths' apprenticeship. stepped out last month according to this prearranged schedule-not, as the Washington gossip had it, because

he objected to the spending speedup. · Quiet Rise-Stans has moved so quietly up the bureaucratic ladder that he remains practically unknown in Washington except to the small group of Administration insiders. He has been for years a leader in his profession, serving a term as president of the American Institute of Accounting. But in Washington he has been content to stay in the background.

He fits without any sign of strain into Washington life, showing none of the anxiety to get a job done hurriedly and get back to private life that marked many of Eisenhower's earlier appointees. He shows a rather professional attitude toward public service. the life he would pick. But it's not

· Elephant Hairs-By choice, he would spend six months a year working, then six months exploring and hunting big game. Shooting has been a passion since boyhood, when he hunted around his hometown of Shakopee, Minn.

He and his wife have been on two East Africa safaris. On the same wrist where he wears a watch, Stans wears an amulet woven of hairs from the tail of an elephant he shot. Sometimes the watch and amulet become jammed together-making Stans probably the only member of the Eisenhower team who keeps track of his appointments through a tangle of elephant hairs. It's enough to make a caller overstaying his time

· What the People Want-Up to now, each of Eisenhower's Budget Directors has fought to reduce spending.

Stans, too, is a budget cutter by inclination. But he's probably more flex-

ible than his predecessors.

He has no rigid ideas on what is "proper" or "healthy" by way of budget totals, for example. To him, the size of the budget "depends on what the people want the federal government to do for them; the more they want, the more they'll have to pay.'

Right now the people want the government to halt the recession, so he's philosophically carrying out Eisenhower's orders to speed the flow of dollars.

· Chief Aide-In this task he has the sympathetic support of the man he promoted to Deputy Director-40-yearold Robert E. Merriam, who had been Assistant Director under Brundage.

II. Real and Decisive Power

Stans heads a bureau that has grown mightily in prestige and authority since it was founded in 1922, with Gen.

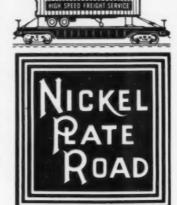
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Charles G. Dawes-known for his underslung pipes and pungent phrases-in charge. At first Dawes saw it as merely a bookkeeping office.

If Congress orders garbage dumped on the White House steps, he said, it would be the bureau's job to see that the largest amount got there at the least expense.

This gesture at neutrality did not last long. Dawes soon discovered that whether he liked it or not, he was sitting at the heart of the policymaking process and that, as a result, the Budget Director was destined to be an unpopular man, the great nay-sayer of government.

So great did the office become that Harold D. Smith—budget head for seven years during World War II—did not even like to attend Cabinet meetings. According to Budget Bureau tradition, he felt that his office outranked mere department heads.

• Behind the Scenes-Stans punctures such exalted concepts of the job.

"The power of the Budget Director," he says, "consists merely of the opportunity to express his prejudices."

That understates it a bit. True, everything he does must be in accordance with Presidential directives. He has no power to speed up or slow down spending on his own.

But he gets a chance to express his prejudices to the most important people in government, and on every key issue. He attends every Cabinet meeting, and every meeting of the National Security Council. He sees the President privately more than any other agency head. Often he is called to the President's office two and three times a day. Department heads must consult him on major projects.

• Over-All View-Stans likes to compare the bureau to the financial office of a corporation, where the claims of the sales department for a new promotion, the desires of the plant manager for new equipment, and the arguments of the research department for a new laboratory, are weighed against each other in the light of the financial picture as a whole.

In government, the Budget Bureau has this over-all role.

"It's a power that has to reside somewhere," Stans points out. In day-to-day operations, the director and the head of a spending agency try to reach agreement. If they can't get together, the issue is laid before the President—and more often than not, the President supports his budget boss.

 Mystifying—So it's a very real and often decisive power—and one that constantly mystifies members of Congress.

The Constitution grants Congress sole power to authorize expenditures. The power of the purse—in Congressional eyes—is supreme among the



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powers of government, and rests without qualification in the legislature.

In practice, this is not true.

Many Presidents have spent money from the Treasury that was not authorized-Jefferson to arm naval vessels against Great Britain, Lincoln to buy \$2-million worth of supplies when the Civil War broke out, Coolidge-and many other Presidents-for emergency relief after natural disasters. In emergencies, Presidents have always spent first and asked Congressional approval later, and Congress never has refused.

III. The Power Not to Spend

Even more baffling and irritating to Congress, the executive department is not obligated to spend money once it is

appropriated.

This has led to some bitter conflicts. In 1948, with Republicans in control of Congress, \$800-million more was voted for the Air Force than Pres. Truman had requested. On Truman's orders, Frank Pace, his Budget Director, in effect impounded the money.

In 1956, the Democratic-controlled Congress appropriated \$900-million more for heavy bombers and research than Eisenhower had requested. He told Congress he would spend only as much as he thought wise. Eventually, some \$600-million was obligated.

· From Congress Itself-Actually, the authority not to spend stems from acts of Congress. In the Anti-Deficiency Act of 1950, Congress directed the exccutive department to make all possible savings. The same idea was developed in a Congressional report of the same period that instructs spending agencies to look on appropriations as ceilings, and to spend "the smallest amount possible within the ceiling figure."

Last year, for example, Congress voted \$50-million for new armories; only \$12-million of this has been approved for spending by the Budget Bureau.

"Our job is to see that money is not wasted, just because it is appropriated,"

Stans put it.

Last year, expenditures were blocked for a different reason. Congress had approved enough spending to send the debt higher than the statutory limit of \$275-billion. So to live within the ceiling-set by Congress itself-the Administration held back appropriations.

· Pot Shots-No matter what the reasons, Congress regularly heaps criticism on the bureau when it intervenes in the spending process. In recent weeks the bureau has been accused of delaying public works, the development of an atomic powered airplane, and the construction of atomic reactors.

The spending agencies sometimes join this chorus. Last year, for example, an admiral whose office had been curtailed bitterly described himself as "working for some clerk in the Budget Actually, Stans points out, Bureau. the decision was made first by the Admiral's own service chief.

IV. Learning to Say "No"

Part of the mystery surrounding the bureau's functions stems from the way it has traditionally conducted its business-behind one of the tightest news blackouts in the capital. Employees bar themselves from normal contacts with the press and the public.

· Relaxed-On this, too, Stans is taking a more relaxed approach. He is willing to throw at least some light on

what the bureau is doing.

His first speech as director, delivered last week in Houston, was meaty with facts about the new spending pace, and warned of the coming breakthrough into the \$80-billion-a-year level.

If time will permit, he even hopes to see a few reporters-something no Budget Director had done since Frank Pace had the job in 1949.

• Thoughtful-Sit down with him now, and it's plain he considers his current spending role as temporary.

He thinks spending is on its way to something close to a \$74-billion total for the fiscal year that ends June 30 -\$1-billion higher than expected a few months back.

For the fiscal year beginning July 1, he sees a possibility of a \$78-billion

total expenditure.

By fiscal 1961 "or even sooner," he sees the annual total reaching \$80billion, unless the spending pace is again slowed down.

This prediction seems safe enough. The \$80-billion annual rate could actually be hit in the final quarter of calendar 1958 at the scheduled rate of climb-though it would stay that high only for one quarter, according to present plans.

. But Firm-At this point, Stans becomes the Budget Director of tradition-the man who must say "no

He considers \$80-billion a harmfully high total for an economy of the size he foresees over the next few years.

"It would lead to a higher debt ceiling, and to deficits," he points out, "and would make the federal budget a powerful inflationary force.'

He's speaking up inside the Admintration for a slower spending pace, and in Houston voiced a stern warning for the spenders.

A friend in the Administration is not at all surprised by this.

"Maury Stans is one of the world's most pleasant guys," he said. "But you get to be Budget Director, and you have to be against home and mother if they cost money-either that or get out of town." END

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Business Is Keeping Its Head

The 1958 McGraw-Hill survey of business plans for new plant and equipment (page 31) generally confirms expectations that capital spending will continue declining through the rest of this year and that no upturn is yet in sight for business investment in 1959.

This is not cheerful news, in anybody's book. However, considering that the new survey was taken in the midst of the downswing of our most serious postwar recession, with industrial capacity still growing as a consequence of the 1955-57 investment boom, the McGraw-Hill survey results are, if anything, better than one had a right to expect.

For the survey shows that business is revising its capital spending plans downward, not desperately or irrationally, but with extreme caution—and only as far as seems required by reasonable estimates of future capacity needs in relation to business expectations of a healthy, rising sales trend after 1958. The major cutbacks in capital spending, according to present plans, will come this year; from 1959 on, business is planning to hold capital spending steady at a level of better than \$30-billion.

Though business planning remains cool and remarkably confident, we must not blink the fact that, if pressures on business are permitted to get too heavy, the business investment line can break—and a substantial number of companies may cut their spending plans well below those at present reported. Business concerns said they would reduce their capital spending plans markedly below present projected levels, if the business decline continued. Such a continuing drop in investment would aggravate the danger that the economic recession might start snowballing.

Nevertheless, the new survey at the same time provides encouraging evidence that U.S. business does not mean to stand around biting its nails and hoping for a miracle to reverse the course of the economy. On the contrary, business is making a big switch away from spending for expansion toward spending for the purpose of creating the conditions under which the economy can resume its growth. Though total capital spending will be down 12% this year and 8% farther in 1959, business expenditures on research and development will rise 14% this year above 1957's peak of \$7.3-billion. By 1961, research spending is slated to rise more than 35% above the 1957 level. And businessmen are planning to push for more efficient-and profitable-operations by putting heavier emphasis on replacement and modernization of old equipment.

These shifts in the composition of business investment programs are having two important effects: They are sustaining capital investment at a relatively high level in a period of excess capacity, and building a firmer base for future expansion.

Fill Out and Sign

At midnight last Tuesday, the curtain came down on this season's version of that familiar tragicomedy entitled Making Out the Income Tax Return. A never-failing fountain of inspiration for cartoonists, TV comics, and jokesmiths of all breeds, the famous Form 1040 is now so much a part of mid-Twentieth Century life that scarcely anyone stops any more to reflect that its pages of small type and its intricate structure of sections and subsections are a symptom of something radically wrong with our tax system.

It's not that the Internal Revenue Service has done a bad job in its efforts to simplify this mechanism for separating a taxpayer from his bank account. In fact, 1040 is a real triumph for the tax collector's art. But even simplified, rationalized, streamlined, and pretested on Rhesus monkeys, 1040 exemplifies a fundamentally wrong approach.

The trouble is that we have pushed up the progressiveness in the structure of tax rates until in the upper brackets it has become almost confiscatory. Then, to offset this injustice and to provide incentives, we have built up a long list of deductible items—contributions, state and local taxes, interest, medical expenses, business expenses, casualty losses.

The result is that a man with a fairly substantial income must maintain a set of records that would do credit to a small corporation. To get the deductions he is entitled to he must be able to prove each expense, each loss, each dollar that goes to charity. And because of the complexity of this accounting and the possibilities of abuse, the Internal Revenue Service must maintain an expensive army of examiners and accountants to comb over his return and make life miserable for him if he slides a veterinary bill in with his medical expenses.

There is no hope of cleaning up a situation like this with a single sweeping reform. But the long-term goal for our tax system should be clear. It should be to reduce the rate of progression enough to abolish all deductions and exemptions except the straight credit for dependents. This needn't mean a loss of revenue; the top rates in the income tax bring in little extra money. It need not even mean lower taxes for the top bracket taxpayers. But it would mean a simple and direct system of taxation instead of the present combination of impractically high rates and impractically detailed deductions to take the curse off them.



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B Siping — cross-cuts in cover design — improves grip and flexibility

C Cross section of belt showing "step-down" design of gripping ridges and fabric reinforcement

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